Expert Advice on Palms, Pocket PCs, MP3 Players, Digital Cameras

Exclusive! Sony's Hot New Game Controller for the Clié!

ISSUE 5.5 OCTOBER / NOVEMBER 2002

HANDHELD computing™

THE NUMBER ONE GUIDE TO HANDHELD DEVICES

Handheld Gaming Showdown

Can a PDA beat a Game Boy Advance for fun on the run?

The Truth About Bluetooth

Forget the hype—we put this hot wireless technology to the test

Bored Kids?

Parental Diversion Assistant to the rescue!

Tiny Digital Cameras

Four pocket-sized digital cameras put to the test

Over 20 Reviews!

- ***Tomb Raider for Pocket PC***
- ***Toshiba Pocket PC e740***
- ***Sharp Zaurus***
- ***Sony Clié T665C***
- ***KeyContacts***
- ***And more***

Toshiba Pocket PC e740

Sony Clié T665C and GC10 Gamepad

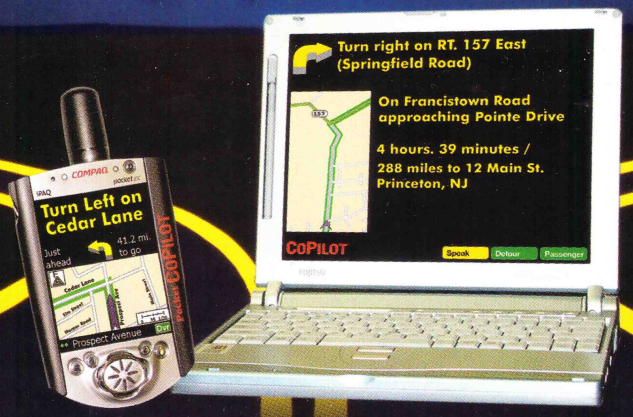
7 87838 96908 1 55>

$4.95 U.S. • $6.95 Foreign

www.hhcmag.com

© 2002 ALK Technologies, Inc.

The best you'll find, when it comes to finding your way.



CoPilot®

You can't find a better way to go.

PC Magazine called it "A superior program for in-car navigation," and named it their editor's choice. BusinessWeek found it to be a "huge help in finding your way on unfamiliar roads." And the Consumer Electronics Show awarded it for excellence in design and engineering — four years in a row.

CoPilot is the award-winning, laptop and Pocket PC-based GPS navigation and route guidance solution trusted by thousands of drivers on the road today. Driver-friendly and easy-to-use, CoPilot won't steer you wrong thanks to two-way voice-technology that verbally guides you to your destination in real time. CoPilot delivers instant and automatic route recalculation, constantly updated ETA and an intelligent detour capability. Reduce driving stress. Avoid traffic, construction, you name it.

CoPilot — It's still the best way to go.

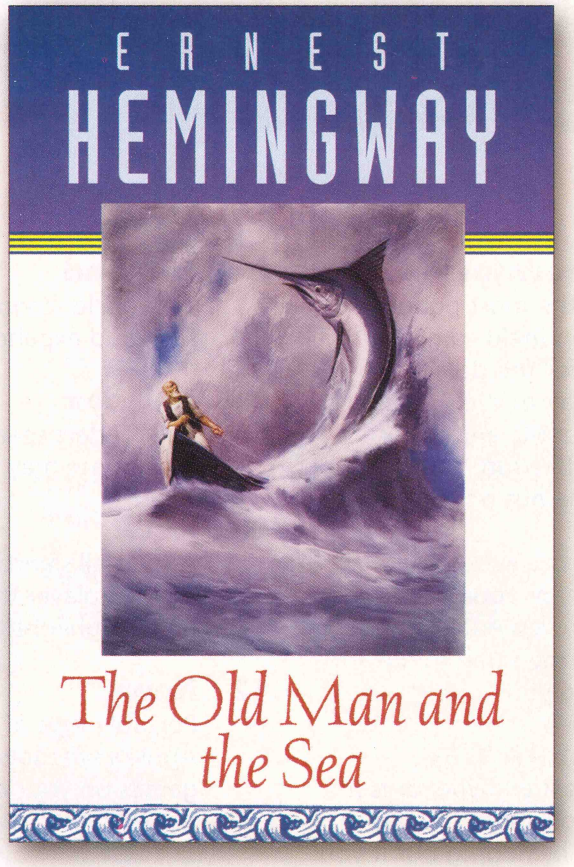
How to find CoPilot? Easy.
Visit **travroute.com/hh** or call **1.888.TRAVROUTE** for free demos and special pricing.

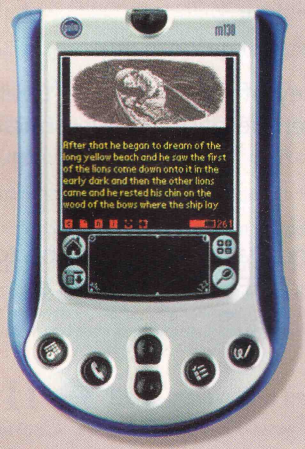
Popular Mechanics EDITOR'S CHOICE AWARDS · BusinessWeek · PC MAGAZINE EDITOR'S CHOICE · THE WALL STREET JOURNAL · MVP 2001 SMART BUSINESS

ALK Technologies, Inc.

THE EXPERTS' CHOICE FOR IN-VEHICLE NAVIGATION

TRAVROUTE®
A Division of ALK Technologies, Inc.





The Hemingway electronic collection from Scribner offers new ways to bring Ernest Hemingway's extraordinary writing to readers and to make Hemingway's works more accessible to new generations. Palm Digital Media is pleased to make these outstanding works of Hemingway available to readers in our award-winning Palm Reader format for handheld and desktop computers. All 23 volumes are available now for only $7.99 each.

palm

Available for
Palm™ Reader
from
Palm Digital Media
www.palmdigitalmedia.com

HANDHELD computing

contents

40

Features

28 Handheld Gaming Showdown
Games are actually among the most popular third-party programs for handheld computers. But which platform is best for the dedicated gamer? Jason D'Aprile compares the Game Boy Advance to Palm, Pocket PC, and Linux handhelds. While they all offer fun, you may be surprised which one came out on top.

34 PDA: Parental Diversion Assistant
Your handheld computer keeps you organized, productive, connected, and even entertained. But did you know it can do the same things for your kids? Rick Broida shows you how.

40 Living Life the Bluetooth Way
Bluetooth is finally here... Is it all hype, or is it actually useful? Dave Johnson spent the day in the Handheld Computing labs finding out if you really can live life without wires.

48 4...3.2...2...1...Shapshot!
Sure, that slick new 5-megapixel camera with a 10X zoom is amazing. But if it's so big that you never have it with you, it's not that great, is it? Dave and Denny take a look at four tiny cameras that prove "you can take it with you."

Reviews

58

52 Sony Clié PEG-T665C
54 Toshiba Pocket PC e740
56 Sharp Zaurus
57 Nomad Jukebox 3
58 Flipster
59 Keycontacts
60 Pocket Informant
61 Also: Tomb Raider, QuickOffice 6.0, AcidImage, Kinoma, Sedio Charging Kit, NexiPak, SCOTTeVest Sport, Today, PoQuick, Cross Matrix, Fisher Space Pen Stylus, Mini-Dogfight, FIFA Soccer, Abysma, and Glom

Departments

04 Offhand
The inside scoop on our new look and expanded coverage.

06 Mailbox
The readers speak. Or write, as the case may be.

08 New!
A do-it-all smartphone, a tiny digital camera, and an MP3 player that adds a little "pop" to your music highlight this month's hottest new products.

12 News!
Portable Age of Empires, a top-secret new Palm, Apple's sync solution, yet another storage card, games on your cell phone, and more!

Columns

20 Practical Palm
Rick Broida looks at TV, Palm-style. Where is it now, and where's it going?

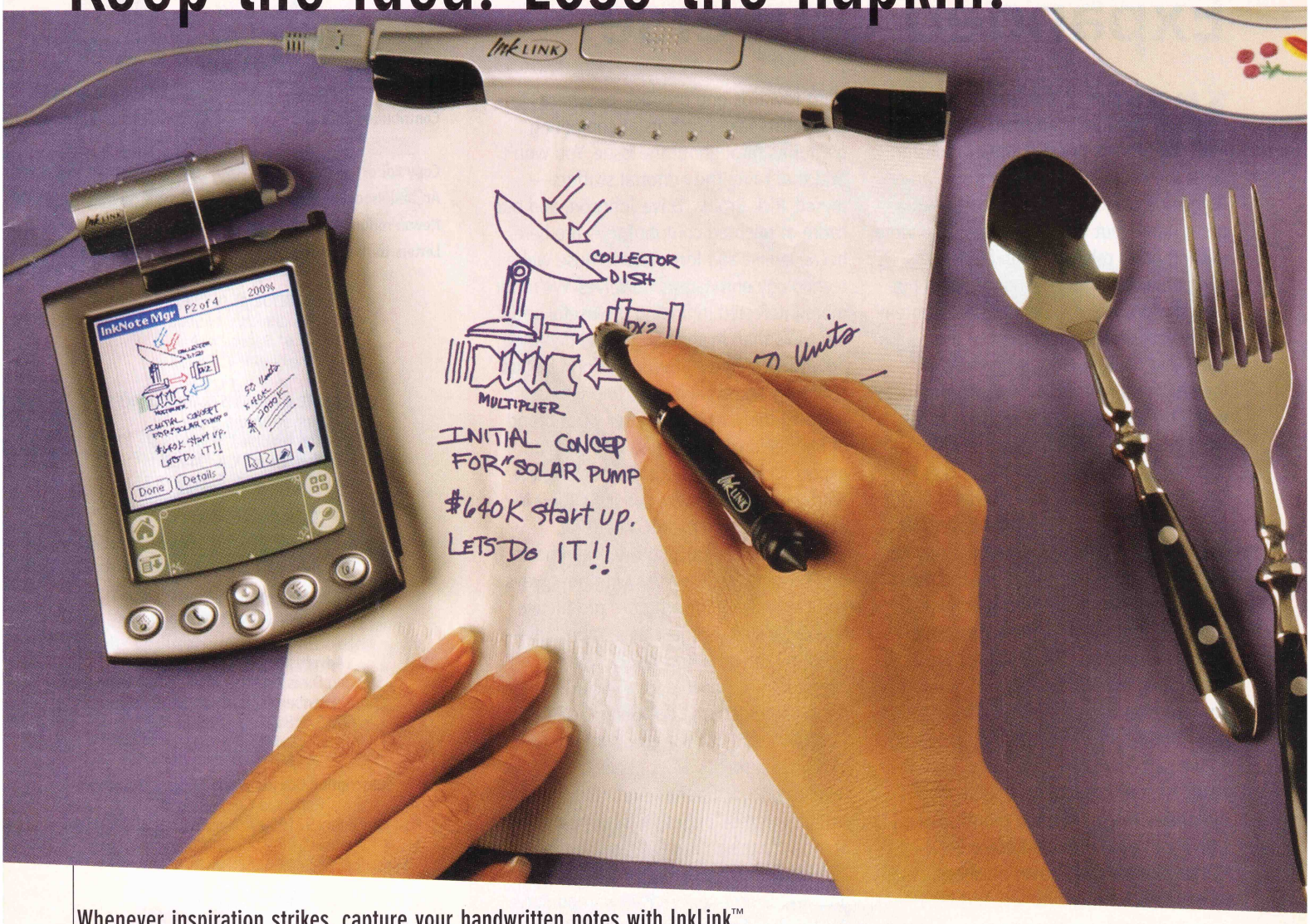
22 Pocket Watch
Denny Atkin takes a hands-on look at wireless communication options for the Pocket PC.

24 Picture Perfect
Dave Johnson outlines how to get rid of red-eye in your digital photos.

26 Replay
Sheldon Leemon's survey of file-sharing software shows that Napster's demise hasn't slowed music swapping.

72 Head-2-Head
Wherein Rick Broida and Dave Johnson come to blows about Bluetooth, WiFi, and Star Trek's effects on credibility.

Keep the idea. Lose the napkin.



Whenever inspiration strikes, capture your handwritten notes with InkLink.™

With Seiko Instruments' new InkLink™ Handwriting System, you can instantly capture, organize, edit and send your handwritten notes and drawings into your handheld, laptop or Windows® PC. Just place the InkLink Data Clip on any size paper up to legal size tablets, plug it in and start writing. Cut, copy, paste, zoom–you're in control. InkLink synchronizes your notes with HotSync™ or ActiveSync.™

And with its convenient pocket-size carrying case, InkLink goes where you go. Check it out at **seikosmart.com**, or call (800) 688-0817. And leave those cocktail napkins behind.

©2002 Seiko Instruments USA Inc. All rights reserved. Specifications subject to change without notice. SII is a registered trademark of Seiko Instruments Inc. InkLink, InkNote Manager and SmartTools are trademarks of Seiko Instruments USA Inc. Corporate names and trademarks stated herein are the property of their respective companies.

SII Seiko Instruments Inc.
SmartTools: Technology for Business and Home/Office™

BEST BUY Turn On the Fun

COMPUSA WHERE AMERICA BUYS TECHNOLOGY.

InkLINK™ HANDWRITING SYSTEM

Expanded Universe

Welcome to the first issue of the new *Handheld Computing*. This is our first major redesign since we changed our name from *Tap Magazine* over two years ago. (It was a great name, but for some reason we were getting press releases from brewing companies and dance studios.) With our new design, we're expanding our content to cover a broader spectrum of the handheld market. Now, when you're looking for a new PDA or smartphone, you'll be able to get the big picture, as we'll cover offerings on a variety of platforms, including Palm OS, Pocket PC, Symbian, Linux, Blackberry, and more. Our goal is to offer fair, balanced coverage that will help you make the best buying decisions, and to help you get the most out of your handheld after purchase.

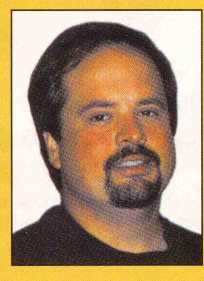
To our longtime readers using Palm Powered handhelds, fear not, as we'll be offering even *more* Palm OS-related content over the course of the year. Our new format allows for additional articles, so we can cover more products in each issue. Also, we're launching a separate bimonthly magazine next month, tentatively titled *Handheld Enterprise & Wireless,* which will cover business usage of handhelds, smartphones, and other wireless devices. With these magazines alternating each month, we'll be publishing 150% as much handheld material as we did last year. We also publish a series of free electronic newsletters—currently general Palm OS and Clié newsletters, as well as editions for developers and enterprise users. Finally, there's our PDAbuzz.com site, where you can get a daily dose of handheld news, and subscribe to the aforementioned free newsletters.

One of our primary concerns is providing you with the best handheld-related information in an *objective* and entertaining manner. Too often we've read multi-platform magazines that have an obvious slant towards one product, or where columnists take potshots at competing platforms throughout the issue. You won't find that here. The editorial staffers—myself, Rick Broida, Dave Johnson, and our cadre of talented contributors—are here because first and foremost because we're technology enthusiasts ourselves. We're far more interested in finding the useful and fun tools than in spending hours debating "platform religion." Every platform has its strengths and weaknesses, and we'll treat them all fairly. And no matter what brand of handheld computer you use, you can expect to find out about the hottest new hardware and software products for it in each issue of *Handheld Computing.*

We'll also be putting more emphasis on "how-to" articles, showing new ways you can make yourself more productive and organized—or just have more fun—using handhelds. And finally, we're expanding our coverage to include other handheld electronic devices in addition to PDAs—look for the scoop on the latest in digital cameras, MP3 players, GPS receivers, smartphones, and other electronics in these pages. With the advent of standard expansion cards and the release of Bluetooth-connected devices, many of you are using these as PDA companions. As you build your toolkit of handheld tools and gadgets, we'll show you what's hot and what's not.

We're anxious to hear your feedback on our new design and emphasis, because in the end, this is *your* magazine. So write us at *letters@hhcmag.com* and tell us what you think.

Denny Atkin,
Editor-in-Chief
denny@hhcmag.com



HANDHELD Computing™

Publisher Andrew Eisenberg / andrew@hhmgroup.com
Editor-in-Chief Denny Atkin / denny@hhcmag.com
Editor Rick Broida / rick@hhmgroup.com
Contributing Editors Dave Johnson
Sheldon Leemon
Copy Editor Dawn Jepson
Art and Production Director Connie Bigelow
News/Product Announcements editor@hhcmag.com
Letters to the Editor letters@hhmgroup.com

EDITORIAL OFFICE
Handheld Computing
41 Bacon Drive
Shelburne, VT 05482

CORPORATE & ADMINISTRATIVE OFFICES
Handheld Media Group, Inc.
1670 South Amphlett Blvd. • Suite 214
San Mateo, CA 94402
p 650.378.8522 / f 650.378.8513

Chief Executive Officer
Andrew Eisenberg
andrew@hhmgroup.com

Marketing Manager
Shiloh Rusk / shiloh@hhmgroup.com

Advertising Account Managers
Stephen Davis / stephen@hhmgroup.com
Christy Eisenberg / christy@hhmgroup.com
p 650.378.8522 / f 650.378.8513

Subscription Questions and Address Changes
Handheld Computing™
Post Office Box 921998 • Norcross, GA 30010-1998
e-mail: subscribe@hhcmag.com
Subscribe: 888.406.4048 / www.hhmgroup.com

No information appearing in *Handheld Computing*™ may be reprinted in any form for any reason without the express permission of the publisher. To request permission, send a letter of inquiry to:

Andrew Eisenberg, Handheld Media Group, Inc.
1670 South Amphlett Blvd., Suite 214, San Mateo, CA 94402

If you would like to order reprints of a specific review or feature, contact the publisher for pricing information.

POSTMASTER: SEND ADDRESS CHANGES TO
Handheld Computing™
Post Office Box 921998 • Norcross, GA 30010-1998

Issue 5.5 October/November 2002
Handheld Computing™ is published six times annually by Handheld Media Group, Inc., 1670 South Amphlett Blvd., Suite 214, San Mateo, CA 94402. Annual U.S. subscription price: $16.95. Application to Mail at Periodicals Postage Rates is Pending at San Mateo and at additional offices. Material in this publication may not be reproduced in any form without permission. Palm is a trademark of the 3Com Corporation. Handheld Computing, Handheld Computing Enterprise Edition, Handheld Computing Weekly and Handheld Computing Buyer's Guide are trademarks or tradenames of Handheld Media Group, Inc. All other trademarks and trade names used throughout the publication are the property of their respective owners. All editorial content is believed to be correct at the time of publication. Handheld Media Group, Inc., nor its suppliers or vendors cannot be held responsible for any errors. All material contained in this publication is copyright (C) 2002 Handheld Media Group, Inc. All rights reserved.

USA MAPS & MORE

for Palm OS® devices

Palm • Handspring • Sony • Others

- **USA Street Atlas**
- **Turn-by-turn directions**
- **Hotel listings, restaurant reviews and more**

Easy zoom and pan on detailed street level urban and rural maps.

Find street locations in more than 75,000 cities and towns.

Locate restaurants and other points of interest near your destination.

Only $29.99 wherever Palm OS™ devices are sold. Or receive a free bonus application when you order online @ www.handmark.com

INCLUDES:
Mobil Travel Guide®
Star Ratings & Descriptions

RAND McNALLY

StreetFinder® Mapping & Travel Information Software

HANDMARK™
tools & toys for a mobile generation™
www.handmark.com

Order toll free @ **1-866-447-4PDA** (1-866-447-4732)

infoUSA Tele Atlas

©2002 Handmark, Inc., All Rights Reserved. Handmark, the Handmark logo and associated trade dress are trademarks of Handmark, Inc. Software images ©2002 Rand McNally. All rights reserved. Rand McNally and Streetfinder are registered trademarks of Rand McNally & Company. Palm OS is a registered trademark and Palm is a trademark of Palm, Inc. Windows is a registered trademark of Microsoft Corporation. Sony is a registered trademark and Memory Stick and CLIÉ are trademarks of Sony Corporation. Hotel and restaurant reviews based upon the MOBIL TRAVEL GUIDES, ©2002 by ExxonMobil Travel Publications. All rights reserved. All other brand names, product names or trademarks are the property of their respective owners.

Mailbox

Can You Hear Me Now?

I tried the new Handspring Treo, but found that VoiceStream was totally inadequate. Even the roaming didn't work. Is there any good device that has nationwide service?

—*Robert H. Freilich*

Handspring's Treo 180 and 270 models use GSM, which is the de facto cellular standard in Europe, but is still being "built out" in North America. If your travels primarily take you to populous areas, GSM will likely perform fine for you. But if you want the best current coverage in North America, you'll want to use a phone and carrier that supports the CDMA standard used by carriers such as Verizon and Sprint PCS. Smartphones with CDMA support include the Audiovox Thera, based on the Pocket PC operating system, and the Samsung I300 and Kyocera 6035/7135, which run the Palm OS. Handspring is teaming with Sprint to release a new CDMA communicator, the Treo 300. It may be available by the time you read this.

Not Giving Us Static

A satisifed reader wants to thank Denny Atkin and the magazine for the article in the July issue informing us of the Palm cradle exchange program for the m500/505, solving the problem with HotSyncing due to electrostatic discharge (ESD). When I went to the cited Palm site for an exchange, I learned that this exchange program began in April, 2002. Since I do not recall reading/receiving anything from Palm about the problem, *Handheld Computing* magazine was how I first learned about this issue. Thanks for keeping us up-to-date. As far as I'm concerned, my subscription for the year has already been paid for because of this one article.

—*Bruce H. Smith*

Glad we could help, Bruce! At press time, the cradle replacement program was slated to end on September 30, 2002. For up-to-the-minute details, visit www.palm.com/support/m50XUSBcradle.html

How to Get Wise?

In your July issue, in your article about sales people, in particular real estate sales people, you mentioned a product called "House Wise". Unfortunately, you didn't mention a publisher as you did all the other programs. I've searched and searched and I can't find anything with that name, so I was hoping you could help me out! I'm new to the Palm, and as a real estate agent, these tools have tons of potential for me and my business. Any help would be greatly appreciated!

Keep up the great work on the magazine!

—*John*

Author Dave Johnson replies:
Actually, John, I just throw something like that in every once in a while to see if anyone besides my therapist reads what I write. You can find the program here: www.palmgear.com/software/showsoftware.cfm?prodID=14880

Obligatory Bluetooth Letter

I don't think smartphones will ever by very successful. So, to me, the argument whether the Treo or the Nokia or any smartphone is better is moot.

The main reason: size and weight. Just walk into any boardroom and ask everyone to take out their phones and put them on the table. What will you see? The smallest phones available. Why? Because when they are not in the boardroom, they are running about and want the lightest load to tote whenever possible. When they go to dinner, or buy groceries, or watch Timmy playing Little League, they only want a tiny phone. When they go to work or the coffee shop on a work day, they ll bring along a PDA.

Sony is on the right track with Bluetooth. In Japan, most of their laptops now have Bluetooth built-in. Several of their phones have Bluetooth. They have a Bluetooth Memory stick for the Clié. Soon there will be a Clié with Bluetooth built-in.

With a BT connection from the PDA to a phone you can choose to bring the PDA when you need to, but you have the freedom to have the tiniest phone with you all the time. I currently have an Ericsson T39 and Sony Clié NR70V with a Bluetooth Memory Stick; they work beautifully together.

A phone is and should be a phone. A PDA should be a PDA; the two together make little sense. Keeping them separate also allows you to upgrade them independently.

—*Pete Stoppani*

You make some interesting points, Pete. We definitely agree that for the unwashed masses, size will remain the paramount requirement over utility. But smartphones are getting smaller, and with devices like the Treo or Audiovox Thera, tech-savvy users can carry a single device and have both PDA and phone capabilities available at all times. Smartphones versus Bluetooth is a hot debate around the Handheld Computing *offices, particularly now that nobody will even talk to Rick once he tries to restart his "Voyager was the best Star Trek" insanity. What kind of smart communication devices do you folks think will win in the end? Drop us a line at letters@hhcmag.com.*

Couldn't Wait to Get Home

Hey, I just wanted to tell you that I love your magazine. Picked up a copy of it in the Park Mall in downtown Houston. Looks like you guys really know what you're talking about. Keep up the good work!

—*Johnnie*

Johnnie was exchanging emails with us via a wireless handheld right after

purchasing the magazine. We love it when readers actually use handheld technology to communicate with us! If you write us from your handheld, be sure to let us know what hardware you're using.

Making a Commitment

Yeah, I want to have a color screen, a faster processor, audio capabilities and the like, but bottom line is, especially in today's economy, do I really need to spend a big chunk of money to improve on something that still does the job that I bought it to do? Let's face it, the Palm V was the best Palm unit ever created. It's still impressive, even without color, even without the faster processor, even without audio capabilities. Sure I'd love wireless capabilities, but it's not worth the money for a new unit plus the monthly fees. When will I finally retire my Palm V? When there is a hi-res color unit as sexy as the Palm V, with wireless internet, for $200 or less, with no monthly fees. I think the V and I are partners for life.

Though I still love reading about all the new stuff I don't have. Keep up the good work guys!

—Brandi

Well, the new Danger HipTop gives you wireless for $200, but it's monochrome, and there are definitely monthly fees. We imagine you'll see $200 color wireless Smartphone/PDAs within the next couple of years, with the price subsidized by cellular providers. But with no monthly fees? Looks like your trusty Palm V will be with you til death do you part!

Flipping Over Flip Covers

I have a Treo 180g. Why did I buy the Graffiti model? The tiny keyboard looks nice, but if you have to put it down to use it or use your thumbs, you just don't gain much. I had an HP 200LX for a few years and ended up with very sore finger tips from typing. We all know that the Treo and other Palms are good for writing short emails, and for that Graffiti works just fine. I wish Handspring would release a Graffiti version of the color models, but I doubt it will happen.

The other appealing feature of the Treo, which everyone overlooks, is the flip cover. These are missing from many handhelds; instead you have to buy a bulky case, which makes the PDA difficult to pocket. What makes the Treo useful is that you can just put it in your pocket so it's there when you need it. Why has everyone forgotten that?

—Joel Berman

New!

Clié's Got Game

Playing action games on the Clié has ranged from frustrating to infuriating. Most Clié models have teamed cutting-edge graphics, sound, and processors with buttons apparently designed by people who never had to use them. Action games are nearly unplayable on the T series, for instance, because of its terrible up/down rocker design. Now the company has a fantastic solution for wannabe gamers with its PEGA-GC10, the best game controller yet for a handheld computer. Now this is what we expect from the company that developed the PlayStation2.

This clip-on controller attaches to the HotSync port on the NR, T, and SL series Clié models. It boasts four-way directional keys, a pair of fire buttons, and four additional buttons—all programmable so you can tweak them for specific games. The feel is excellent, and the response is ultra-quick. This is the first handheld setup where we've found the fast-action Pocket Express port of Sinistar to be actually playable.

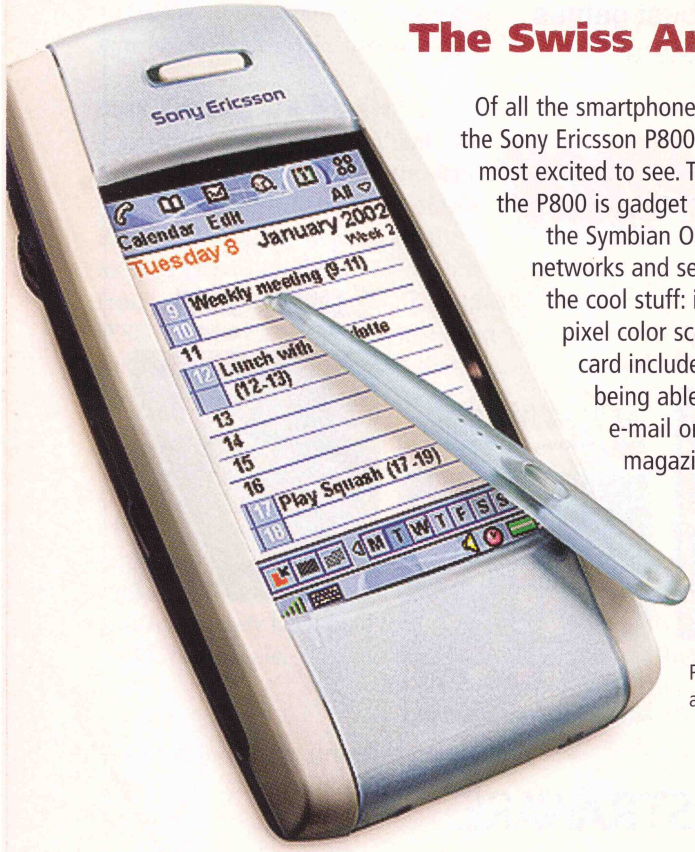
The PEGA-GC10 will sell for $39.99; that price includes a full copy of Sega's addictive Columns game, as well trial versions of a number of other titles.

The GC10 game controller clips onto the T, NR, and SL series Clié models.

The Swiss Army Phone?

Of all the smartphones scheduled to hit the airwaves this year, the Sony Ericsson P800 (www.sonyericsson.com) is the one we're most excited to see. That's because we're gadget freaks, and the P800 is gadget nirvana. First, the techie stuff: it's based on the Symbian OS and supports GPRS and triple-band GSM networks and secure WAP and HTML Web browsing. Now, the cool stuff: it has built-in Bluetooth, a spacious 208x320-pixel color screen, a Memory Stick DUO slot (with a 16MB card included) and an integrated digital camera. Imagine being able to snap a photo at any time, then instantly e-mail or upload it. Please—you're drooling on the magazine.

Though announced last March, the P800 still hadn't shipped as of press time. Sources tell us it should be available by October, and we hope to have a hands-on review for you in the next issue. Pricing has not been set.



Phone, PDA, and digital camera, all rolled into one.

A Megapixel in Your Pocket

Finally, a pocket digicam with a flash.

How many times in life have you smacked yourself for not having a camera on hand during a special occasion or Kodak moment? Admit it: you didn't forget the camera—you just didn't want to schlep it around with you all day. Casio (www.casio.com) has a solution: the Exilim EX-S1, a digital camera that's thin and light enough to slip in your pocket and forget about—until you need it. About the size of a credit card and just 11.3mm thick, the Exilim offers better specs than you'd expect: a 1.3-megapixel CCD, built-in flash, SD/MMC media slot, and color LCD. This puts to shame all the so-called pocket digicams we've seen thus far. And if you'd like to hear some Pixies with your pixels, there's another model—the EX-M1—that adds a built-in MP3 player to the mix. Both models should be in stores by now—watch for our review in the next issue.

Have a CD and a Smile

Sonicblue would like to teach the world to sing.

In one of the weirdest cross-marketing promotions we can recall, Sonicblue (www.sonicblue.com)—makers of some of our favorite consumer products (including ReplayTV and the RioRiot) has teamed with Coca-Cola to produce a Coke-branded MP3/CD player, the Rio Volt SP50C. Yep, it's essentially a regular SP50 with a splashy Coke logo painted across the top. That's not a bad thing: the SP50 plays standard audio CDs and MP3-packed CD-R and CD-RW discs. It displays ID3 tags, promises 10 hours of play from two AA batteries, and features 120 seconds of anti-skip protection. The Coke version also comes with a car-stereo cassette adapter and cigarette-lighter power supply—neither of which come with the regular SP50. On the other hand, the SP50C costs $20 more. But even at $89.95, this combo player is cool, refreshing, and delicious. Wait a minute, who said that?

Newsbytes

Dude, You're Getting a **Dell Pocket PC!** Dell Computer has contracted with Taiwanese manufacturer Winstron to manufacture a Dell-labeled Pocket PC. It's rumored to have a launch price of $299. Dell's going for the price over performance, so we'd expect this to be a StrongARM-based unit with only the standard Pocket PC 2002 feature set. Moving Pocket PC pricing down to consumer levels is a smart move for Dell, and could result in noticeable growth in the Pocket PC market this winter...

The **Danger Hiptop** smartphone should be shipping by the time you read this. T-Mobile (a.k.a. VoiceStream) should be the first provider to offer this $200 communicator, rumored to be called the Sidekick Desktop. The Hiptop uses the GSM cellular network...

Looking for a Pocket PC that can habla Español? Mexican manufacturer Alaska (*www.alaska.com.mx*) has announced the **Alaska Cove Pocket PC**, which includes complete Spanish localization. Available in Mexico only, this PDA features a 206MHz StrongARM CPU, 32MB of RAM, and a "Scroll de navegación." Price is $399 US, or $4,141.39 M.N...

Jornada, we hardly knew ye. In late July, HP introduced its last handheld to bear that name. The **Jornada 928** is a combination cell phone/Pocket PC that will be sold in Europe.

Continued on page 10

Newsbytes *continued*

Following HP's merger with Compaq and the announcement that only the iPAQ line would continue, there was some question as to whether the Jornada 928—announced in February—would actually see production. The device joins the mm02/T-Mobile XDA, Audiovox Thera, and Pocket Loox in the growing selection of Pocket PC-based smartphones. In related news, HP has pledged to support the mostly discontinued Jornada line (the 720 and 928 will live on for now) with at least three years of technical support...

Palm has released an update to **Palm OS 4.1 for the m500 and m505**. A minor update, this new OS version includes a number of bug fixes. Among these are fixing recognition problems with SD/MMC cards larger than 32MB, and addressing a number of VFS issues that programmers have had to work around for version 4.0. There are also many subtle enhancements, such as an updated Copy function that copies data associated with an application along with the app itself. The updater is free, but beware: It doesn't work with Windows XP or Mac OS X. While most OS X users can boot back to OS 9.x, Windows XP users will have to locate a PC running an older operating system to run the update. Uh, Palm, XP has been out for nearly 10 months now. Assuming you're the rare user who updates your handheld but not your desktop computer, you can download the update from

Continued on page 12

new!

Intel Demos Portable Video Player

More proof that personal video is shaping up to become the Next Big Thing: in July, Intel unveiled a mockup of a personal video player (PVP)—a PDA-size device designed to play TV shows, movies and music, and show off digital photos. Intel says it will manufacture the components—which include a 4-inch passive matrix screen, hard drive, and XScale processor—but leave it to other companies to produce and sell the devices.

According to Intel's Bryan Peebler, video content will originate on your PC or a Replay-type recorder and download to the PVP via a USB 2.0 port or wireless 802.11b connection. Consumers will not be able to share content with each other, a move Intel hopes will prevent the distribution-related legal battles that have plagued Replay-maker Sonicblue.

Intel's cool electronic gadget are all on the clearance shelf; look for other companies to produce its video player.

PVP devices should be available next year for about $400. In the meantime, Pogo Products' already-shipping Flipster! reveals the potential of personal video—see the review on elsewhere in this issue.

High-Tech Lost and Found for Your High-Tech Goodies

StuffBak, as you might guess, helps you get lost stuff back.

Like Blanche Dubois, we have always relied on the kindness of strangers. That's why we put our faith in services like Boomerangit and StuffBak, which help lost PDAs, phones, keys and other personal items find their way back to you. Buy a specially coded label, stick it to an item, then lose it. Assuming the finder isn't the selfish, loathsome sort, he need only call the toll-free number or visit the Web site listed on the label to arrange the item's return. Both services offer labels in a variety of shapes and sizes, including tiny ones for watches, aluminum ones for luggage and key tags for, well, keys. Label packs start at $9.95 for six; after that, you pay only for shipping charges (if there are any) and any reward you care to offer (finders automatically receive a pack of labels from the company). Say, if you put one of these labels on a GPS receiver—well, there's a joke in there somewhere.

Sony's Latest: High Resolution, Low Price

Sony's new Clié retails for under $150.

So far this year, Sony has introduced six new models in the popular Clié series: the S360, T615C, NR70, NR70V, T665C and, most recently, the SL10. That was as of July, giving Sony an average of nearly one new model per month. We're sure that deserves some kind of award, but what? Most Prolific PDA Maker? Most Likely to Confuse Consumers?

Actually, Sony's skill at cranking out cool models makes decrypting the alphabet soup worthwhile. The Palm OS 4.1-based SL10 packs a 320x320-pixel backlit monochrome screen, a Memory Stick slot and 8MB of RAM into a 3.6-ounce frame that's just 0.6 inches thick. Sony supplies the usual barrel full of software, including the full version of Documents To Go Standard Edition and, for the first time, an e-book reader (MobiPocket). Whereas most Clié models are rechargeable, the SL10 runs on two AAA batteries.

Priced at just $149, the SL10 is sure to wind up on many a holiday wish-list—and give Palm's m125 a run for the money. The latter also sells for $149, but has a low-resolution screen. Meanwhile, Sony's PDA-of-the-month policy seems likely to continue, as rumors of an SJ20 (like the SL10, but with a rechargeable battery) and SJ30 (with a color screen) surfaced just as we went to press.

the Ultimate in Portability for Your Handheld devices

quality leather cases
replacement styluses
screen protectors
travel kits and chargers
and much more . . .

Cases + Accessories

andheld4me

Your Destination for Quality Products

Travel kits*
Sync cables*
Travel chargers*

HANDHELD computing Best Products of 2001

Flash Stylus*
Stylus with pen*
Combo Stylus

Leather Cases*
Neoprene Cases*
... and much more

* available for most PDAs

www.ebcases.com
www.handheld4me.com

30 DAY MONEY BACK GUARANTEE!

USA: 800-896-CASE (2273)
Int'l: 858-385-1976
Fax: 858-385-1971
Email: info@ebcases.com
For international distributors, please access our site.

Order on-line and Save $$
See our wide selection of products on-line

FedEx Available

Newsbytes *continued*

Newsbytes

Dude, You're Getting a **Dell Pocket PC!** Dell Computer has contracted with Taiwanese manufacturer Winstron to manufacture a Dell-labeled Pocket PC. It's rumored to have a launch price of $299. Dell's going for the price over performance, so we'd expect this to be a StrongARM-based unit with only the standard Pocket PC 2002 feature set. Moving Pocket PC pricing down to consumer levels is a smart move for Dell, and could result in noticeable growth in the Pocket PC market this winter...

The **Danger Hiptop** smartphone should be shipping by the time you read this. T-Mobile (a.k.a. VoiceStream) should be the first provider to offer this $200 communicator, rumored to be called the Sidekick Desktop. The Hiptop uses the GSM cellular network...

Looking for a Pocket PC that can habla Español? Mexican manufacturer Alaska (*www.alaska.com.mx*) has announced the **Alaska Cove Pocket PC**, which includes complete Spanish localization. Available in Mexico only, this PDA features a 206MHz StrongARM CPU, 32MB of RAM, and a "Scroll de navegación." Price is $399 US, or $4,141.39 M.N...

Jornada, we hardly knew ye. In late July, HP introduced its last handheld to bear that name. The **Jornada 928** is a

Continued on page 14

News!

The Age of Empires Begins this November

Shots from an early build of the game.

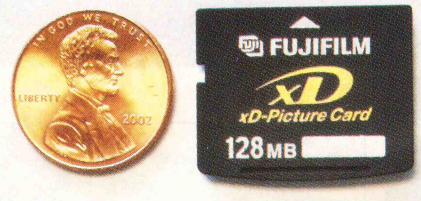
Build your civilizations from scratch.

Get your holiday shopping finished before Halloween, because ZIOSoft has a dastardly plan to destroy your productivity come November. The company plans to launch a Pocket PC version of Microsoft's Age of Empires, which means you'll be able to carry one of the most addictive real-time strategy games ever in your pocket, a mere stylus-tap away.

Expect most of the options from the PC version.

Presented here are some exclusive screen shots of an early alpha-test version of the Pocket PC version of Age of Empires. ZIOSoft stresses that the final game will look even better. You can be sure we'll have a hands-on look as soon as ZIOSoft gets us code—assuming we can tear ourselves away from the game long enough to write about it.

xD, Yet Another Memory Card Standard

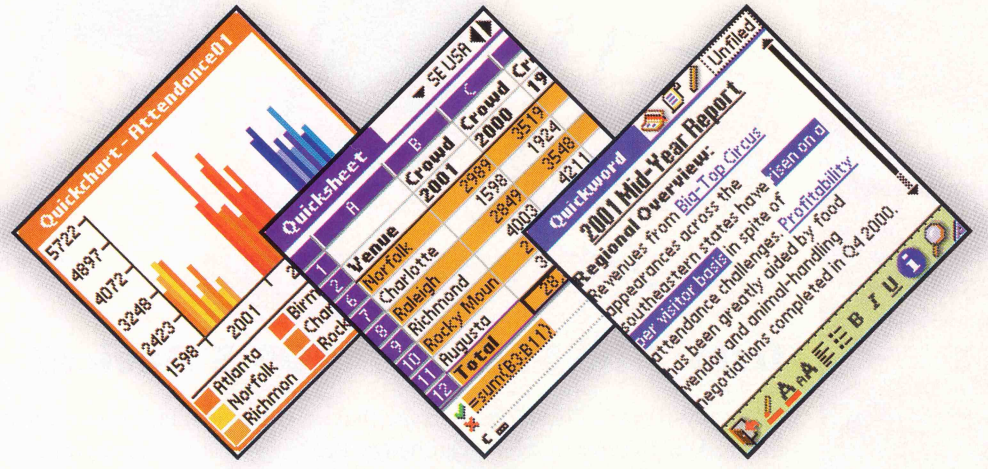


Yes, it's small, but do we really need another memory card standard?

Just when you thought it was safe to invest in SD (or MMC, or CompactFlash, or SmartMedia, or Memory Stick, or Memory Stick Duo) for your PDA and other portable devices, Olympus has announced a completely new memory card format, called xD-Picture Card. xD cards measure .8x1x.067 inches—about the size of a postage stamp—and are expected to eventually ship in capacitates as high as 8GB. Initially, the card will be available in a variety of densities that range up to 128MB. Some cross compatibility is built in; Olympus claims you will be able to use xD cards in CompactFlash devices with the help of an adapter. The new format was developed in conjunction with Fuji, and the cards will be manufactured by Toshiba. Look for xD Picture Cards to debut before the end of the year.

This is probably an attempt by Olympus to replace the aging SmartMedia format—though we think that SD/MMC already does that just fine. We're not sure the world needs yet another removable memory card, especially when power users are still waiting for higher capacities and lower prices for the formats that are already on the badly-fractured memory card market.

Step out of your office and into ours...



Quickoffice™

You need a new window to your office

Best Product 2001
HANDHELD computing
Best Products of 2001

Best Office Suite

Best Spreadsheet (4 yrs in row)

Special Award for Wireless Innovation

Your Palm Powered™ handheld can do more than remove walls around your personal information. **Quickoffice™** gives you access to vital Office files anytime, anywhere.

Quickoffice™ The Best Handheld Office Suite* includes:
Quicksheet® spreadsheet with Microsoft® Excel integration – four time winner *Best Palm OS Spreadsheet* award
Quickword™ word processor, Microsoft Word-compatibility, ebook reader, and HTML editor
Quickchart™ analytics module for advanced charting and data visualization

Give your Microsoft Office files the freedom to roam.
And yourself, the freedom to work like never before.

Get a FREE 15 Day Trial at www.quickoffice.com/newfreedom

* Handheld Computing magazine Award for Best Product of 2001

Quickoffice™
Conference

Quickoffice Conference - collaborate like never before

Coming Soon: wireless real-time collaboration with spreadsheets and documents

Quickoffice™

www.quickoffice.com

palm™
Select Alliance Member

CUTTING EDGE SOFTWARE

phone: 800-991-7360

Quickoffice is available at leading office supply and electronics retail stores, and from our website at www.quickoffice.com

Copyright © 1997-2002 Cutting Edge Software, Inc. All rights reserved. Quickoffice, Quickword, Quickchart and the CES logo are trademarks of Cutting Edge Software, Inc. Other marks may be trademarks or registered trademarks of their respective holders.

news!

Newsbytes *continued*

in July after discovering a problem with the backlighting assembly. According to Handspring spokesman Allen Bush, the company discovered a component glitch that causes the backlight on some Treo 90 and 270 models to go dark over time, making them unreadable. Current Treo owners with defective models get free replacements. Handspring wouldn't discuss how many units were affected, but claimed tests showed only a "small amount" of them had the problem, and that most Treo 90/270 owners shouldn't experience problems. The Treo 180, which uses a monochrome screen, was not affected...

In March, 2001, ATM maker NCR **filed a patent-infringement lawsuit** against Palm and Handspring, claiming the companies had violated NCR's patents relating to financial transactions performed on handheld PCs. Yesterday, a U.S. District Court judge dismissed the case, clearing both companies of any wrongdoing. "Palm respects valid patents and has taken licenses where appropriate," Palm CEO Eric Benhamou said in a statement. "We refuse to succumb to intimidation by companies that use charges of patent infringement to bully others..."

Want your fill of handheld news on a daily basis? Tune in to www.pdabuzz.com!

An early artist's rendering of the next-generation Palm handheld? Oslo or m900, perhaps?

Oslo: The First Palm OS 5 Device?

Ironically, it was a Pocket PC web site that first leaked pictures of what's claimed to be Palm's next-generation handheld. If the photo of the device, which appears to be code-named Oslo, is a fake, it's an awfully convincing one. The key features of the PDA (other than the assumed ARM processor) are a hi-res color screen, a design that collapses to cover the Graffiti area, and a game-friendly directional pad in place of the usual up/down rocker switch. There's also a small speaker or microphone just above the screen.

The curious decision to create a collapsing writing area would be primarily useful for reducing the vertical size of the handheld—the screen certainly needs as much protection as the Graffiti area. The directional pad is a very welcome addition. It's useful for easy navigation in business apps like spreadsheets, but the real reason we hope this is real is for gaming. Many action games are difficult to play on Palm OS handhelds due to the original button layout—this handily solves that problem. We only hope that Palm is mandating this layout for Palm OS 5 devices from its licensees—particularly Sony, which seems to have an amazing talent for creating annoying button designs that are extremely game-unfriendly. (Sabotage from a jealous PlayStation division?) We noted that the Oslo prototype appeared to be sitting on an m500-series cradle, an indicator that the device will remain compatible with Palm's Universal Connector.

Assuming Oslo is real, we'd expect it to be the high-end organizer entry in Palm's ARM armada. Public statements by Palm have indicated three new devices in the works. The others are a device designed to sell for under $100 (as opposed to dropping to under $100 because it's outdated, like the m100), code-named Cub, and a new wireless device that will also have voice capabilities. In addition to these three handhelds, which should be powered by Texas Instruments ARM chips of varying speeds, Palm is rumored to have at least one Intel Xscale device planned for an early 2003 launch as well.

Pocket PC Thoughts, the site that posted the rumored Oslo image, said that Palm's Director of Global Information Security contacted them and requested they remove the images. If it was indeed a clever hoax, like the professionally rendered Apple PDA designs we've seen, we doubt Palm would have bothered.

Because Palm requested the removal of Pocket PC Thoughts image, we're not reprinting it here. However, we do have an artist's concept that we received a couple of months ago that shows how the collapsible design works. The differences between this design and the actual image we've seen are in the area of the buttons—they're actual buttons on the real device, and just icons in the rendering—and in the directional pad, which has an "action button" in the center.

We know you're anxious for news on the new ARM Palms. As soon as we get more details, we'll post them on our news site, www.pdabuzz.com, and of course we'll follow up in our next issue.

Introducing A New Magazine

Handheld Computing Enterprise & Wireless

Coming October 2002

The information source for mobile professionals, IT managers, and others who use, manage, and select handheld & wireless products for enterprise.

...Palm OS, Pocket PC, RIM, Linux, Symbian...

Product Reviews Case Studies Industry Interviews

Vertical Market Profiles Solutions! Solutions! Solutions!

Subscribe Today

6 Issues - $16.95. Order online at www.hhcenterprise.com

Phone orders at 888.406.4048

news!

iSync, You Sync, We All Sync with iSync?

Apple's iSync is another one of those technological breakthroughs that starts on the Mac, and is such a logical progression that it'll likely end up a standard feature on all computers down the road. This innovative application keeps your address book and calendar information in sync on a wide variety of handheld devices: Palm OS handhelds, Bluetooth cellular phones, and even the iPod music player.

Apple pushes for universal synchronization.

It's a favorite pastime among long-time computer users to argue about just how much of what you see on today's computers is owed to Apple. But while you can argue about how much of Apple's innovation was developed in-house and how much came from savvy acquisition or appropriation of creative technologies, you can't deny that the company has been on the leading edge of popularizing innovative software designs. Sure, there are third-party program that blow iMovie, iTunes, and iPhoto out of the water from a pure "features" standpoint. But how many of them are as easy to use as Apple's applications? And there's a lot to be said for making these features available out of the box.

The capabilities of iSync just make sense. Sometimes you're traveling lightly and you only have your cell phone. Or you might be at the gym with just your iPod. Transparent, easy-to-use synchronization of PIM data between devices should be a given, and kudos to Apple for making it a mainstream feature.

We're not positive that iSync is extensible—the developer documentation isn't available yet. But Apple's other applications like iTunes and iPhoto offer plug-in architectures, so we expect that it will be.

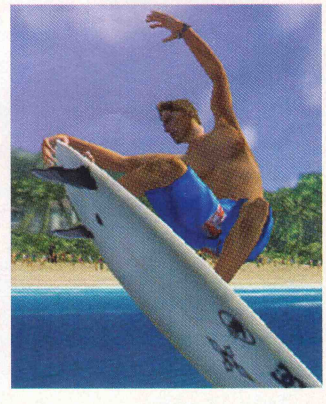
iSync will work with many Palm OS handhelds out of the box. Because it actually works in conjunction with HotSync Manager, Mark/Space's Brian Hall says the company's Missing Sync product will extend iSync to work with all Sony Clié models (and the Treo 90 as well, although that's an undocumented bonus). At MacWorld, Mark/Space showed an upcoming version of the Missing Sync software that will bring iPhoto and iTunes support, as well as the ability to mount the Memory Stick as a desktop drive, to any Palm OS device that supports USB and VFS.

There are currently products for the PC that will keep multiple devices in sync—Starfish's TrueSync, for instance, has long allowed synchronization between Palms, Pocket PCs, and phones and pagers from Ericsson, Motorola, and Nokia. But by making this part of the operating system, Apple has essentially created a de facto standard for exchanging PIM data between devices. Way to go, Jobs and company!

Will we see something similar for the Windows platform? For it to become an ubiquitous standard, it would need to come from Microsoft or Palm, to insure very wide distribution. (There's a proposal for a universal sync standard, called SyncML, but so far it hasn't garnered support from Palm or Microsoft.) We think the ball is in Palm's court, given how loathe Microsoft has been to support Palm OS devices. Then again, offering an iSync-like utility for Windows that supported both Pocket PC and Palm OS devices, in addition to phones, smart MP3 players, and other gadgets, would actually be more of a boon to Microsoft's Pocket PC. Because it's still trying to grow its market share and convert Palm users, it's in Microsoft's best interest to make migrating between platforms as easy as possible, and easy data transfer is as much a step in the right direction as Pocket PC 2002's ability to beam data with Palms and understand Graffiti strokes.

Honey? Tony Hawk's on the Phone...

Wireless video game company Jamdat Mobile has entered into a publishing arrangement with industry heavyweight Activision. The deal covers "extreme sport" titles from Activision's action sports brand. Among the games included under the license are Tony Hawk's Pro Skater 4, Kelly Slater's Pro Surfer, and Shawn Murray's Pro Wakeboarding. Jamdat, whose chief is a former Activision exec, is backed by Qualcomm, Sun Microsystems and Intel. It publishes games for phones running both Qualcomm's Binary Runtime Environment for Wireless and Sun's Java 2 Mobile Edition. Earlier this year, the company signed deals with Electronic Arts and THQ.



Activision and Jamdat Mobile plan to give new meaning to surfing on your phone.

We've got it - Why go anywhere else?

PDA Skins

Whether you require a stylish case for the boardroom or a protective hard case for the urban backcountry, the perfect case is yours at DirectCase! We have the Web's largest selection of high-quality cases, hand picked for quality and value from the industry's top names including:

Vaja

E&B
Franklin Covey
Sumdex
Incipio
RoadWired
Rhinoskin
and many more!

Piel Frama

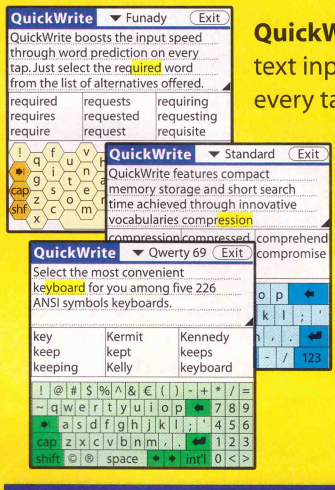
With a knowledgeable and friendly customer service staff, DirectCase features a simple return policy should an item not meet your expectations.

SPECIAL OFFER:
10% OFF all regular price cases!
Use coupon code HHC at checkout.

DirectCase.com
Your PDA Case & Accessory Headquarters

The fastest and easiest way for text entry for Palm®!

100% Guaranteed



QuickWrite is designed to optimize text input by predicting words on every tap.

Improved spelling accuracy through rich vocabularies in 6 languages:

- **English** 175,853 articles
- **Spanish** 176,614 articles
- **German** 182,348 articles
- **French** 179,948 articles
- **Italian** 180,145 articles
- **Dutch** 183,633 articles

MobileSystems®

For each order from
www.mobi-systems.com
before May 31st 2003 get
Enter code: **HHC147**

10% OFF

pocketquicken

Pocket Quicken 2.0 makes it simple to keep your financial information complete, accurate and organized wherever you go. Transferring data is quick and hassle free— just press the HotSync button.

"Pocket Quicken is a great program. Did I say great? I meant life changing! ...you owe it to yourself to try Pocket Quicken "
— PalmPower Magazine

zagatrestaurantguide

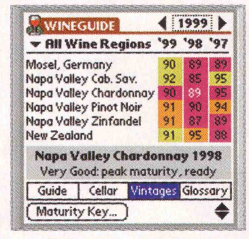
It's safe to eat again! Let ZAGAT transform your handheld into the most up-to-date, comprehensive and reliable dining guide around. Includes consumer based reviews and details for over 18,000 restaurants in 31 locations.

"Exceptionally well implemented, with an impressive depth of information" — PalmUser Magazine

wineenthusiastguide

The premier mobile companion for choosing, evaluating, managing and enjoying wine. Includes full details, prices and reviews for 9000 wines worldwide. Full cellar management and an extensive 1,400 term glossary.

NEW RELEASE!



gotypekeyboardseries

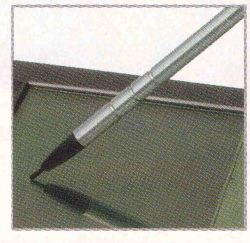
GoType's rigid, award winning design involves no complex moving parts and will enable you to enter data into your handheld as quickly as you can type.

SUPER SPECIAL SAVE $40
Purchase GoType! direct from LandWare for only $39.99
Offer valid for Palm III, V and m100 series models only.

floatingpointstylus

floating•point's unique patent pending design provides a writing experience that is both more comfortable and less wearing on the handheld's screen while improving recognition.

"I was dubious of its claim... but it really does produce more of the feel of a pen on paper, and I got far fewer errors when using it"
— BusinessWeek Magazine



hotlinktravelcable

The next time you are away from your desk, make sure you pack this convenient all-in-one travel cable. The HotLink USB cable will charge and synchronize your m500/705 series, m130 and m125* series handheld using any available USB port. It's great value at only $19.95

*m125 does not support recharging.

www.landware.com
the source for innovative handheld solutions
SALES PH 800 526 3977

From the handheld masses, only one stares back at you with the lens of an integrated digital camera. Suddenly the landscape looks different. Fresh. And the line between organization and entertainment blurs beyond recognition. So do you follow your left brain and let it organize your life for you? Or

©2002 Sony Electronics Inc. Reproduction in whole or in part without written permission is prohibited. All rights reserved. Sony, CLIÉ and Memory Stick are trademarks of Sony. Palm OS is a registered trademark of Palm, Inc. †July 2002 issue. Palm OS software v4.1; some third party applications and devices may currently have limited functionality with

do you veer starboard, and start manipulating your imagination with the same ruthless efficiency with which you manipulate your schedule? It's happy to help you do either. What are you happy to do?
www.sony.com/fresh

Palm OS® software v4.1
Built-in MP3 player
Memory Stick® media compatible

or not be compatible with this model. Please confirm compatibility with third party vendor or manufacturer. MP3 player: requires use of Memory Stick media sold separately. Product supports Memory Stick capacities up to 128MB. A portion of such memory is used for data management functions. Not for use on sand or in water. Screen image simulated.

I Want My Palm TV

A preview of coming attractions

By Rick Broida

As a product of the MTV generation, I'm a guy who needs to be constantly entertained. I crave music when I jog, audiobooks when I drive, TV when I unwind—you get the idea. But air travel has always posed a bit of an entertainment problem. Yes, yes, I read books and magazines, take time to reflect, and all that. But on long trips made longer by delays, layovers and other air-gravations, I need more.

Critical Hit

Love games? Check out the selection at Palm Gaming World (www.palmgaming-world.com). It has over a thousand titles, all sorted into categories and presented with screenshots.

My DVD-equipped notebook works well for watching movies, but barely has the battery life to get through one. Plus you have to deal with rentals, returns and other hassles, and the notebook doesn't exactly fit in my pocket.

Enter "personal video," which I predict will become a hot ticket within two years. Why so long? The hardware has just reached the point of making it practical, but certain content and software issues remain.

Personal video means watching something—a TV show, a movie, a live newscast—on a handheld device. See my review of Pogo Products' Flipster elsewhere in this issue for a look at one of the first standalone products designed expressly for this purpose. See Denny Atkin's "TiVo on the Go" in our online archive (www.hhcmag.com) for a look at video recording and playback on your Pocket PC handheld.

This is an idea whose time has come, and it's finally coming to Palm Powered devices. As I write this, the buzz meter is going tilt over Kinoma Player (www.kinoma.com), the first video player to support the 320x480-pixel Sony Clié NR70 screen. Translation: download the trailer for the new Austin Powers movie, turn your Clié on its side, and enjoy the preview in all its *widescreen* glory. That's right—the dimensions and resolution of the NR70's screen are almost perfectly suited to widescreen movies.

The Kinoma Player

Before you get too excited, keep in mind that there's very limited content available in this format, and there's just no way (yet) to fit an entire movie on a 128MB Memory Stick. But it's a tantalizing taste of things to come, and Sony would do well to consider selling Clié-formatted movies.

In the meantime, let's talk TV. If you have a TV tuner and video-capture software for your PC, you can record shows to your hard drive, then convert them to the Kinoma format and watch them on your handheld. *Alias* and *The West Wing* for you, *SpongeBob SquarePants* for the kids—the possibilities are endless. This is what personal video is all about: your favorite shows in your pocket, available whenever and wherever you want them, free of charge.

Alas, caveats abound. Kinoma Producer—the utility used to convert video files—doesn't do well with AVI files (at least, not the ones I've recorded), and MPEG-1 files take forever to convert (about an hour for 30 minutes of video). Meanwhile, you need a ton of storage space, anywhere from 1-3MB per minute of video depending on resolution and other factors. What the Palm OS needs—and could easily gain with the arrival of OS 5—is support for MPEG-4, a standard designed specifically for mobile video. It offers excellent compression (i.e., smaller file sizes) and is well on its way to universal acceptance.

As I said, this is just the tip of the iceberg. In a year or two, I expect personal video to be a huge selling point for handheld PCs, much as built-in DVD players have become for notebooks. That's assuming, of course, that the process of creating mobile video becomes much, much easier.

Rick Broida is the co-author of How to Do Everything with Your Palm Handheld, 2nd Edition, *from Osborne/McGraw-Hill. Makes a great gift.*

Print from your Palm!

Using **PalmPrint** and **SnailMailer** software, print from dozens of Palm applications to a wide variety of infrared, serial, and parallel printers. *"Best Printing Software of 1999"* (Tap Magazine/ Handheld Computing). ***Platinum certified.***

The world is your office!

Take orders or generate estimates with **Take An Order!** Take inventories with **On Hand**. View or collect data with **CatScan**. All *Handheld Office™* software is *barcode-enabled using Symbol or PSC scanners.*

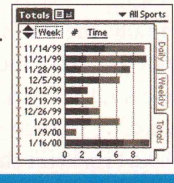
No dupes!

Duplicate entries can be the bane of the Palm user's existence. When things go wrong with HotSync, you can end up with hundreds or thousands of duplicate addresses, datebook entries, etc. Let **UnDupe** remove them all with a single tap! ***Platinum certified.***

DESIGNED FOR PALM COMPUTING PLATFORM PLATINUM

Record your workouts!

Use **The Athlete's Diary** to record your fitness activities, then view totals and graphs for instant feedback. Runners, cyclists, swimmers, triathletes – this is the one for you!



STEVENS CREEK SOFTWARE

www.stevenscreek.com • 1-800-823-4279

PalmPrint is a registered trademark of Palm, Inc., used by Stevens Creek Software under express license. Take An Order!, On Hand, CatScan, UnDupe, Handheld Office, and The Athlete's Diary are all trademarks of Stevens Creek Software.

Your Mobile Solutions Source!

selection...

Choose from a vast selection of name-brand mobile computing and wireless products, solutions and wireless data activation from MobilePlanet.

service...

Whether you're ordering online or from our call center, MobilePlanet's knowledgeable sales and customer service teams are ready to serve you with just a click of the mouse or a toll-free phone call.

mobileplanet

The Mobile Computing Experts™

Contact us today at:

www.mobileplanet.com

1-800-MPLANET

(1-800-675-2638)

©2002 MobilePlanet, Inc. All rights reserved.
We are not responsible for typographical errors.

KEY CODE
AMHHC

Choose Your Weapon

Sure, we have wireless. Which wireless did you want?

by Denny Atkin

There's an old saying in the technology industry: "The great thing about standards is that there are so many to choose from." This adage applies when it comes to wirelessly connecting your Pocket PC to the Internet, where you'll find a number of different wireless options. We recently took a look at three technologies offered by Socket Communications (*www.socketcom.com*), all designed to add wireless access to Pocket PCs equipped with CompactFlash slots.

Critical Hit

AvantGo comes with the Pocket PC, but don't miss Mazingo (free at www.mazingo.net), which offers similar offline and wireless browsing, as well as premium services such as newspapers, comics, and video.

It seems almost old-fashioned. Socket's Digital Phone Card is essentially a CompactFlash serial port adapter with a cable designed to connect to your digital cell phone. Although the functionality is similar to just using a cable from a company such as SupplyNet (*www.thesupplynet.com*), the advantage is that this solution leaves your handheld's cradle connector open, so it can be used in conjunction with a portable keyboard. We put the Kyocera version of the card to the test with a Kyocera 6035 Smartphone and it worked great, despite only being rated for the 2035/2235/2255/3035 models. We were able to use the Smartphone to dial our ISP, check email, and browse the web on our Jornada 568. If you're using a GSM phone, you'll find software for SMS text messaging and managing your phonebook as well.

This one will appeal to buzzword fans. The tiny Socket Bluetooth Connection Kit is the smallest of all the cards we examined—it fits entirely into the CF slot on your PC. (With a CF-to-PCMCIA adapter, it will work in laptops as well.) The software is well-designed, offering passkey/bonding support for the differing connections standards used by Ericsson/Nokia and Motorola phones. It also includes a utility to allow dialing a Bluetooth cell phone directly from the Contacts application. It's not limited to just connecting a cell phone—you can browse networks equipped with Bluetooth access points, or use third-party software to print to Bluetooth printers. It's much slower than 802.11b, but plenty fast for typical Pocket PC applications. If you're willing to spring for a new, Bluetooth-equipped cell phone, we prefer this solution to the Digital Phone Card since you can leave the phone in your pocket while browsing.

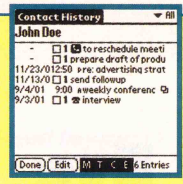
Finally, there's the obvious choice for power users. Socket's Low Power Wireless LAN Card. This is the smallest CF card we've seen so far that supports the 802.11b/WiFi standard. Unlike the other technologies, this one is designed to access the Internet via corporate networks, rather than using dial-up cellular. It's ideal for keeping your Pocket PC connected at home and work if you're using WiFi in those places, and in major cities you can find public WiFi access points in airports, Starbucks coffee shops, and other locations as well. Keep in mind, though, that WiFi is more open to data snoopers than a cellular connection. One of our favorite features was the card's support for wireless ActiveSync—great for connecting to our notebook, which wasn't equipped with a docking cradle.

Strange bedfellows: Socket's Digital Phone Card lets you use the Kyocera 6035 as a wireless modem for your Pocket PC.

So which wireless technology is best? If you want to be able to access the Internet at a moment's notice, the Digital Phone Card or Bluetooth Connection Kit offers the most versatility. But if you can wait until you're within range of a WiFi network at your office or local coffee shop, the Wireless LAN card solution is faster, more versatile, and doesn't eat your cellular connection minutes.

Denny Atkin's been writing about technology since 1987, and he thinks people who complain about 14.4K wireless speeds never tried a 300 baud modem.

Split Screen Agenda View



Contact History Feature

Unlock the power of your Palm® Datebook with Action Names Datebook!

Action Names® Datebook enhances your Palm OS® device's built-in Calendar, Address & To Do List making it easier than ever to **take control of your schedule! Includes new features** such as contact history, line wrapping, high resolution on Sony® CLIÉ® devices, smartphone functionality support, vibrating alarms and more! Integrates directly with Palm® Desktop. Works with Microsoft® Outlook®, Act!®, and more. **Only $24.95***

TinySheet

ALSO AVAILABLE: Now take spreadsheets with you anywhere, or create new ones on the go! **TinySheet**, the most powerful and user-friendly spreadsheet software for Palm OS devices, makes it happen. Syncs with Microsoft® Excel® on Windows® PCs. **Only $29.95***

LEFT: TinySheet, as shown on the high-resolution of a Sony CLIÉ.

More information and FREE 30-day demos available at: www.iambic.com

iambic™
Advancing your handheld experience

eWallet and ListPro
The "Must Have" Software

But don't take our word for it:

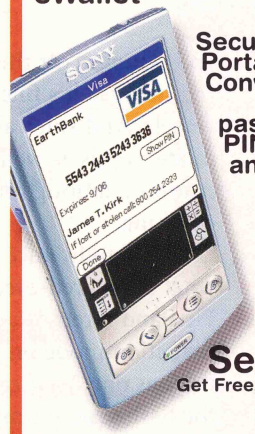
5 STAR AWARD mobile computer user

PC Computing ★★★★★

#1 Mobile Computing

HANDHELD computing Best Product 2001

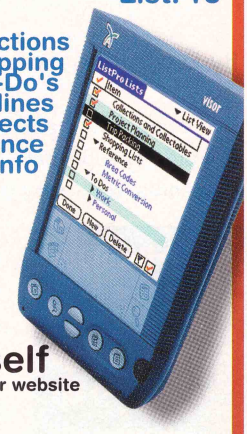
eWallet **ListPro**



Secure
Portable
Convenient

passwords
PINs
and more

Collections
Shopping
To-Do's
Outlines
Projects
Reference
and Info



See for Yourself

Get Free, 30-day trials from our website

ilium SOFTWARE®

1•888•632•5388 1•734•973•9388

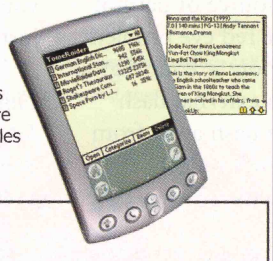
www.iliumsoft.com/hhc

Proporta

•Protection •Power •Software •Cables

TR

With TomeRaider you can carry dictionaries, encyclopaedias, movie guides, bibles and novels on your handheld. There are thousands of **free** TomeRaider files at *www.memoware.com*.



www.proporta.com

Call us toll free on 1 888 331 0803

Largest Selection of **PDA Styli & Accessories** on the Web at Low Prices!

Pocket PC models

stylusCentral.com

Palm OS models

Styli (Multipens!) • Auto Holders • Chargers/Cables
Keyboards • Cases • Memory Cards • Screen Protectors

Make your favorite pen into a stylus! Corporate logo service available.

don't let your memories gather dust in a photo album...

eFrames displays digital picture slide shows!

the perfect way to display memories everyday!

several styles available
personal or corporate use

holds from 12 to 1500 images

changes every 4 seconds to 1 week

eframecentral.com

Cast Off the Evil (Red) Eye

Because you don't want to send Grandma pictures of possessed-looking children.

By Dave Johnson

Red-eye is nothing new; it's been around as long as people have been taking snapshots. You know the drill: you take a picture of a cute little boy and his dog, but when you get the prints back you've actually got Damian and his pet pooch Cerberus. Knowing that red-eye affects everyone's photos is little consolation, though, if your spiffy new digital camera is giving all of your subjects a case of it. The good news is that you can stamp out this creepy photo glitch once and for all.

Critical Hit

Trivista.com's **A Smaller Image** utility ($15) lets you crop and resize images very precisely—great for tailoring your photos for print, e-mail or the Web.

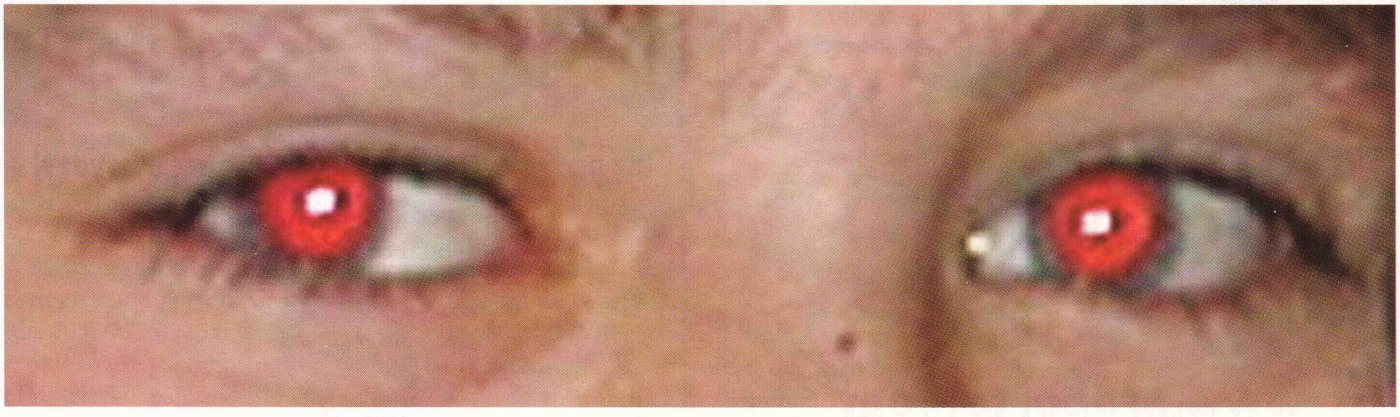
Red-eye usually happens in a dark room. The low light level forces the pupils in peoples' eyes to open up to let in more light—much like the way you open a camera's aperture in dim lighting. When you fire the camera's flash, the light goes through the pupil and bounces off the retina, which looks red because it's filled with blood vessels. And since alcohol tends to dilate pupils as well, red-eye is common among folks who have been drinking.

Thankfully, once you understand what causes red-eye, it's easy to prevent. First and foremost, use the red-eye reduction mode on your digital camera if it has one. Your camera will trigger the flash several times right before the picture is taken, which tends to force your subject's pupils to close. But remember there's now extra time involved in taking the picture—if you don't hold the camera steady for a couple seconds, you'll end up with a blurry picture because you moved the camera just as the picture was being exposed. Another solution is to photograph people outdoors or near windows. If you can arrange your subjects near a bright source of natural light, you can avoid the red eye problem entirely. One other option: if your digital camera lets you add an external flash unit, you can move the flash away from the lens, so the light won't reflect straight back into the lens.

But what if it's too late, and you already have a picture with red eyes? Load it into your favorite image editor, where you can remove the red eye yourself. A lot of image editors come with an automatic red-eye remover tool, and you should try that first. Usually, all you need to do is load the function, zoom in on the eyes, and pick an eye color. The program should paint over the red and give you a dramatically better shot.

If you're using an image editor that doesn't have a red-eye remover built in, you'll have to take the red out yourself. It's pretty easy to do—just load the image and zoom way in so the eyes fill most of the screen. Select a round paint brush from your image editor's tool palette, and set the brush size to approximately the diameter of the red eye in the photo. Choose a realistic eye color for the brush and stamp it over the red. Finally, add a small white glint in the middle of the eye by stamping a very small brush. Voila! No red eye. Make sure you zoom back out to evaluate your photo. Zoomed all the way in, you'll see stray red pixels. But zoom back out, and you may be amazed at how much you've just improved the shot.

Find more great photo tips in Dave Johnson's How to Do Everything with Your Digital Camera, 2nd Edition, *from Osborne/McGraw-Hill.*



Subscribe Today!

Handheld Computing Magazine

The #1 Guide to Handheld Devices

Whether it's a Pocket PC or Palm Powered PDA, Smartphone, Digital Camera or MP3 Player, if it's a portable information device it will be covered in *Handheld Computing Magazine*. News, reviews, tips and shopping advice on these cutting edge technologies, including unique, easy to reference resources guides listing hundreds of products in the hottest categories.

Enterprise & Wireless

The Premier Resource for Mobile Professionals

Enterprise & Wireless will cover all platforms, including Palm, Pocket PC, and Linux, as well as the back-end products, solutions and software that support enterprise environments. The magazine will also focus on wireless technologies such as Bluetooth, Wi-Fi, 3G, and other product and services that impact mobile workers.

Handheld Computing™ Weekly

Get the latest and most up to date information on new products and services. It's Free! Sign up at www.hhcmag.com.

Handheld Computing™ Enterprise

Get the scoop on the latest in Palm Powered Enterprise news and services. It's Free! Sign up at www.hhcmag.com.

HANDHELD computing™

THE NUMBER ONE GUIDE TO HANDHELD DEVICES

Subscribe Now.

Complete and Return the attached subscription card or visit **www.hhmgroup.com**
For fastest service call **888-406-4048**

A Plethora of Napster Knock-Offs

Is music-swapping an unstoppable force?

by Sheldon Leemon

Right about now the Recording Industry Association of America (RIAA) may be feeling a little like Sitting Bull six months after the battle of the Little Big Horn. Their victories against Napster, Scour, and AudioGalaxy may have felt good, but they've done little to stem the tide of online music sharing.

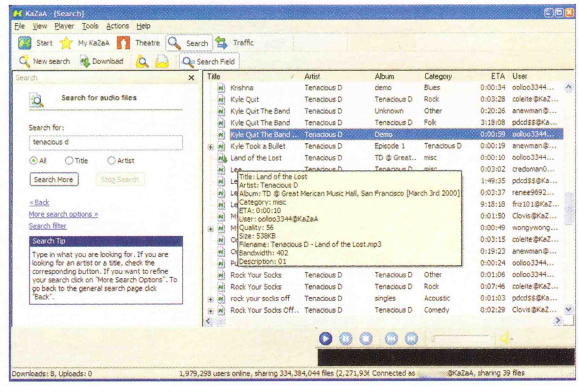
The current number-one hit among MP3 swappers seems to be **Kazaa Media Desktop** (*www.kazaa.com*). On a recent visit, some 2 million users were sharing over 32 billion files (MP3s, movies, and software). KaZaa lets you receive a file from many users at the same time to shorten download time, and if a song becomes unavailable in the middle of a download, the program keeps it in your queue and continues the transfer whenever it becomes available again. On the downside, Kazaa installs "adware" and "spyware"—secret programs that show you ads, and send information about you to advertisers. That's why many people use free programs such as **Ad-Aware** (*www.lavasoft.de*) to remove the spyware, or they install "spyware free" versions such as **Kazaa Lite** (*www.kazaalite.com*).

Kazaa's success has made it number one on the RIAA's list, too. The industry group has filed suit to shut Kazaa down, along with every other service that uses FastTrack (the file-sharing software at Kazaa's core). Observers think the FastTrack providers have a good case, since they only distribute the software and (unlike Napster) don't keep songs or lists of songs on their own servers. The courts may not get to decide the issue, however. Netherlands-based Kazaa BV recently indicated it doesn't have the resources to continue fighting, and StreamCast's original attorney withdrew from the case after the company told him they couldn't afford to pay him.

Even if the RIAA beats FastTrack, they'll still have to contend with the increasingly popular Gnutella network, which will be even harder to sue. Unlike FastTrack, Gnutella is completely open-source; no single company controls the network, or even the software. As Dorothy Parker once said of Los Angeles, "there's no 'there' there." There are, however, lots of popular Gnutella client programs, such as **Morpheus** (*www.musiccity.com*), **BearShare** (*www.bearshare.com*) and **LimeWire** (*www.limewire.com*), with new ones such as **XoloX** (*www.xolox.com*) and **Shareaza** (*www.shareaza.com*) popping up every day.

So what is the RIAA going to do? Well, they've hinted that they may use spoofing software to flood sharing networks with millions of "dummy" files. They've even suggested that they may go after individuals who share lots of songs, since studies show that 10% of users provide 90% of the files. And they've asked the Copyright Office to impose fees on those who "Webcast" music over Internet radio stations, because users can record them with programs such as **Streamripper** (*steamripper.sourceforge.net*). If those fees are upheld, many Webcasters say it will put them out of business.

Despite massive legal wrangling, music sharing on the Internet goes on pretty much undisturbed. Although it can be challenging to keep up with the latest developments, a good place to start is the **Zeropaid** site (*www.zeropaid.com*), which provides the latest file sharing news, as well as links to all the popular programs. You may also want to check out CNET's "File Sharing Smackdown" (*www.cnet.com*), which does a monthly head-to-head comparison of file sharing networks.



Kazaa Lite is Kazaa with the adware that supports the program stripped out. Enjoy the irony.

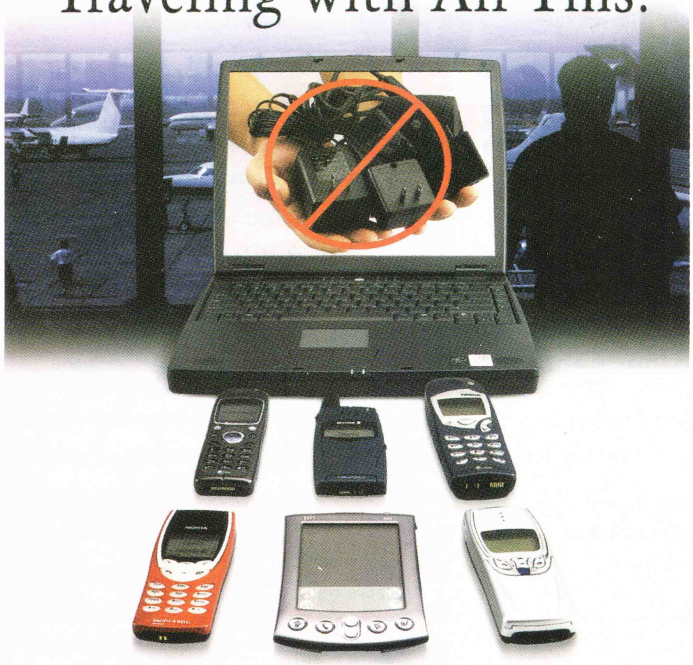
P.S. Even Napster may not be completely dead. In May, 2002, they announced a deal with music distributor Bertelsmann AG that may revive it as a paid (and royalty-paying) service.

Sheldon Leemon, a technology writer for over 20 years, remembers when a handheld PC was a Compaq the size of a suitcase.

Critical Hit

Creative's tiny, jogger-friendly **Nomad MuVo** MP3 player (*www.nomadworld.com*), $179, plugs directly into your computer's USB port, so there's one less cable to futz with. It plays up to 12 hours on a single AAA battery.

Traveling with All This?



Ask us about our USB Charger.

ND-Dimension, Inc. www.nd-dimension.com office: 562.697.7148 fax: 562.697.2054

50 Words Per Minute On Your Palm!

FitalyStamp — for very fast text entry on your Palm Organizer

Fitaly is optimized for single-stylus entry. Letters are clustered in a central pattern that allows fast typing without ever moving your hand.

All 220 Ansi characters available in two taps: « » ¤ • © ® ¼ ² † å ø ß ƒ...

Anyone who uses the PalmPilot's Qwerty keyboard to input text will find Textware Solutions' keyboard superior.
— Herb Bethoney, PC Week

www.fitaly.com

Textware SOLUTIONS
58 Lexington Street
Burlington, MA 01803
800-355-5251
781-272-1432 fax

Only $35

"RoadWired...products that actually seem to be designed by someone who uses electronic devices."

— Handheld Computing, 12/00

NEW!

Our new PDA/Phone Organizer is sleek, lightweight and elegant way to carry and protect the things you use the most.

Exclusive PhoneBooth™ compartment lets you grab your ringing phone in under a second, *without* opening the PDA case!

Just one of the many innovative carrying solutions from

ROADWIRED™
Cases and Accessories for the Technology You Carry

877-HELLO RW • www.roadwired.com

INSTANT POWER™ Amazing Power Solutions!

The INSTANT POWER™ Travel Kit is the most powerful charger that works without electricity.

Even if your PDA is completely dead, this air-activated charger can bring it back to life, letting you use it instantly. It also has matching adapters to charge in your hotel room, in your rental car, or even from your laptop...

Available for most popular PDAs
Kits from only $14.95
Free Shipping Code LAP06

1-888-996-4440
www.instant-power.com

Perfect for Business & Travel

How do the world's best PDAs stack up against the reigning champ of portable video games?

Handheld Gaming SHOWDOWN!

By Jason D'Aprile

We admit it: we like Nintendo's Game Boy Advance. It has a color screen, a huge library of games, great controls, and a price tag even a lowly writer can afford. On the other hand, it doesn't fit in your pocket, play Bejeweled, or do anything but play games. And, truth be told, the screen is an optometrist's nightmare. We may act like 12-year-olds, but we don't have the eyesight to match. The main thing Game Boy advances in grown-ups is eyestrain.

Besides, one need only look at titles like Tomb Raider, Zap!2016, and FIFA 2002 to realize that Game Boy is no longer the only game in town. Handheld PCs have quietly transformed from buttoned-down business machines to rockin' pocket game systems. And because they're almost always at your side, you can sneak a game of Asteroids during a boring meeting, bend your brain with Text Twist while stuck in line somewhere, or breeze through a flight delay with Leo's Flight Simulator (a dazzling Pocket PC game that shows just what handhelds are capable of).

Okay, but which handheld PC really gives the Game Boy Advance a run for the money? We played, played, and played some more with a well-known representative from each of the three major platforms: Palm OS, Pocket PC, and Linux. While we did pick a winner—and the result may surprise you—it's worth noting that you can find great entertainment on any modern handheld. Let the games begin!

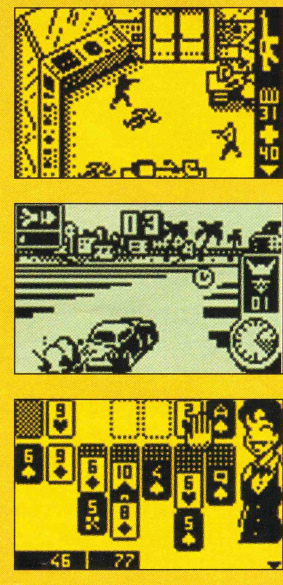
Phone Fun Can Your Nokia Come out to Play?

Barring combo phones that double as Palm or Pocket devices, gaming on mobile phones has largely been a "more hype, less action" affair. Most mobiles have tiny screens, cumbersome interfaces, and little to no graphic power. Consequently, the few games thus far have been little more than Apple IIe throwbacks. Yet some companies persist, and there have been some impressive strides.

GameLoft (*www.gameloft.com*) offers an array of games tailored to specific phone types. They've managed to create shooters, card games, racing sims, and even action/adventure titles. The Siemens M50 appears to be the most game-friendly platform at the moment; the Loft offers 11 games for it. Though most look like early Game Boy fodder, the general coolness factor of playing any kind of action game on a phone tends to cover up the shortcomings of the technology.

DreamQuest Software (*www.dq.com*) recently introduced its Championship Euchre, Hearts, and Spades card games—previously available only for Palm and Pocket PC handhelds—for the Nokia Communicator (a smartphone with a color screen). Players using any of these devices can compete against each other in real-time in DreamQuest's online gaming lobby, as long as they're equipped with an Internet connection.

As phones get more advanced, this kind of person-to-person competition could become commonplace. In the future, instead of using your phone's keypad to bang out, "Meet me for lunch at Panera," you'll be sending missives like, "You sank my battleship!"



GameLoft's big games for small screens

5 Great Game Boy Games

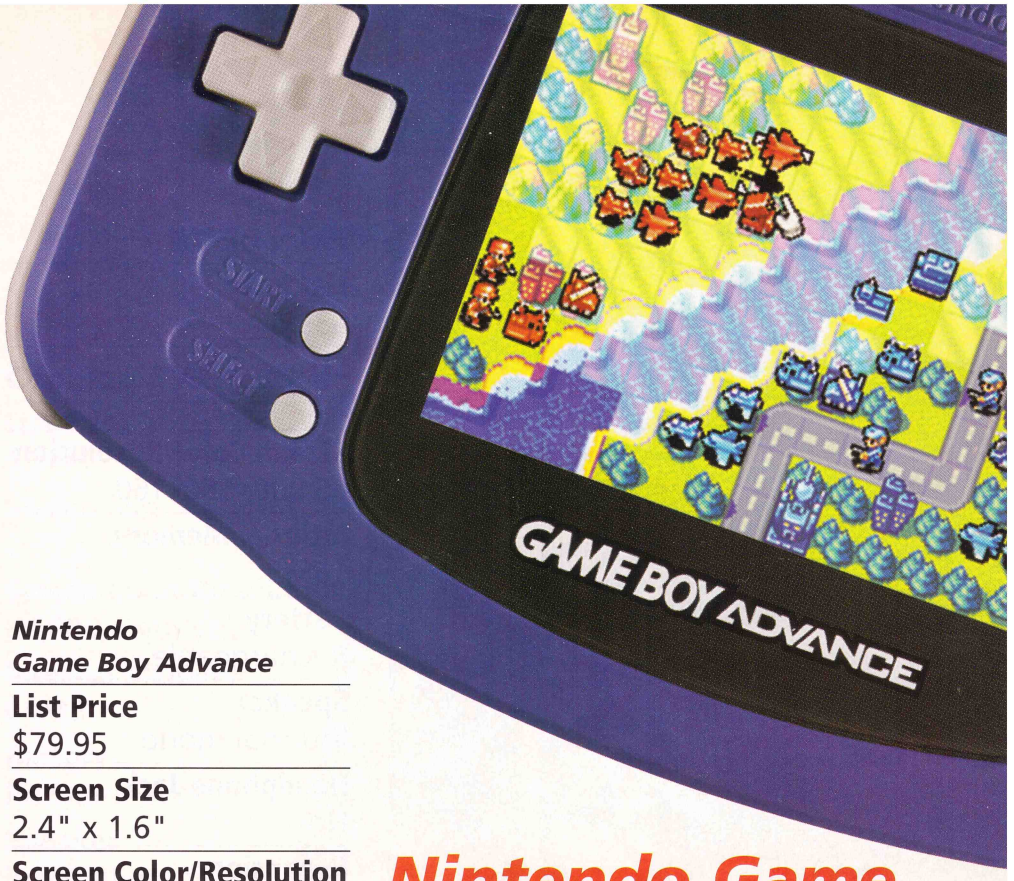
Advance Wars Nintendo's turn-based war game is nothing short of a miracle. Using cartoonish, anime-styled graphics, Advance War brings on-the-go gamers some of the deepest and most involving tactical combat seen on any system. Both intellectual and entertaining, it proves that the Game Boy isn't just for little kids.
$29.99, www.nintendo.com

Golden Sun The best role-playing game of 2001, Golden Sun mixes turn-based combat, a cool fantasy story, a great character system, and incredibly refined gameplay into a visually impressive title that proves you don't need the space of a DVD to make a truly epic adventure.
$29.99, www.nintendo.com

Super Mario World Born on the Super Nintendo console, Super Mario World is easily one of the greatest side-scrolling platform games ever. With a whopping 78 levels, this epic adventure is longer than most role-playing games, and the sharp, colorful graphics still look great.
$29.99, www.gameboy.com/smw

Tekken Advance You won't find many fighting games on handheld PCs, but the GBA has several great choices. Tekken Advance serves up super-cool pseudo 3D graphics, lightning-fast gameplay, and a solid line-up of brawlers. This arcade fighter triple-kicks its way to the head of the class.
$24.99, www.namco.com

Wario Land 4 The Wario series walks a fine line in the surreal. Wario's enemies can change this pompous, gold-loving anti hero into everything from Fat Wario to Zombie Wario, all of which helps him find his precious gold. Bizarre, difficult, and incredibly creative, this is an adventure all its own.
$29.99, www.gameboyadvance.com/wario



Nintendo Game Boy Advance

List Price
$79.95

Screen Size
2.4" x 1.6"

Screen Color/Resolution
32,000, 240x160

Internal Memory
None

Battery
2 AA

Speaker
Internal stereo

Headphone Jack
Yes

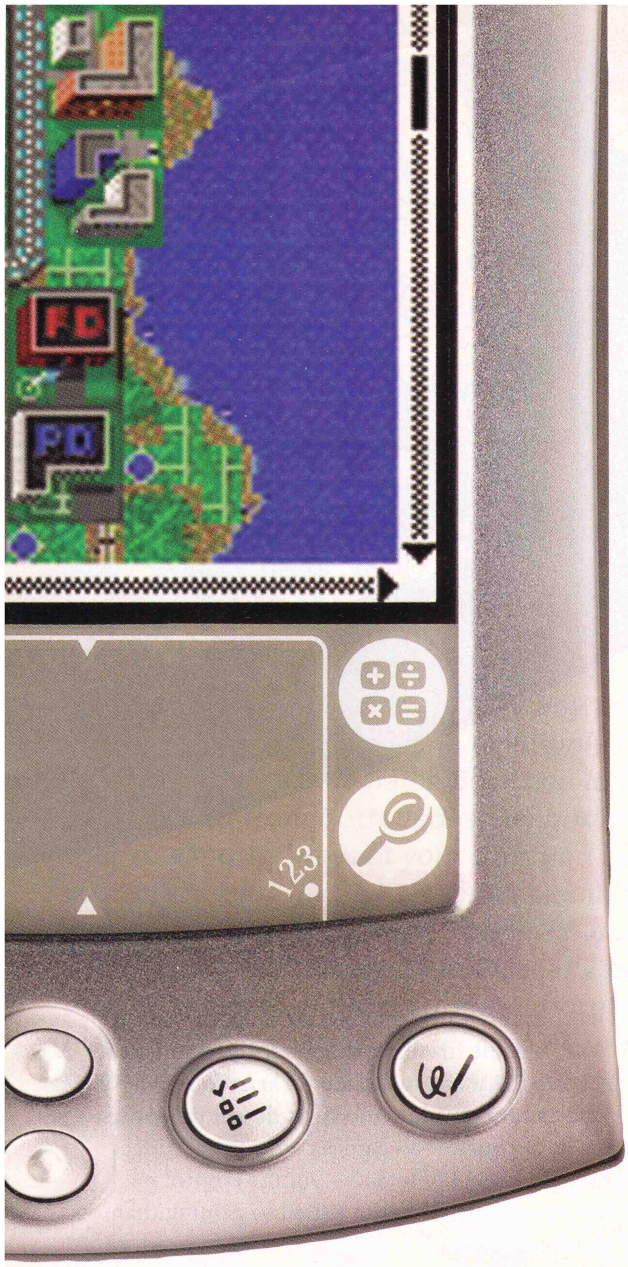
Expansion
None

URL
www.gameboy.com

Nintendo Game Boy Advance

Because the Game Boy Advance is exclusively a game machine, it lacks the versatility of a PDA, but makes up for it in pure entertainment value. You can't download games for it, of course—all games come on cartridges ranging from $20 to $40—but the control pad layout is naturally better suited to gaming than the competition. The GBA's screen can produce colorful 2D images, and is even capable of impressive 3D graphics. And because the system is compatible with older Game Boy titles, users have hundreds of gaming possibilities across all genres. Even so, this past year has shown that games designed especially for the GBA can be as good as, or even better than, anything seen on its big-brother console systems.

There are a couple notable downsides to Nintendo's wonder. The first and biggest complaint is the screen. Not only is it nearly impossible to see in anything but perfect light, the glass is almost as reflective as a mirror. As a result, most portable lights for the unit are useless thanks to glare. The other caveat is that you have to carry not just the GBA itself, but any games you want to play. Sure, the cartridges are small, but they're also easily lost.



Palm m515

List Price
$399

Screen Size
2.2" x 2.2"

Screen Color/Resolution
65,000, 160x160

Internal Memory
16MB

Battery
Rechargeable

Speaker
Internal mono

Headphone Jack
No

Expansion
SD/MMC slot

URL
www.palm.com

Palm m515

Because the Palm OS has been around the longest, there's a stunningly long list of games to show for it. It would be nearly impossible to go through them all, but you could certainly have plenty of fun trying. Palm Powered handhelds excel at pick-up-and-play puzzle games and other graphically simplistic distractions. There are some impressive action titles as well, but this platform is best suited to killing a few minutes here and there—and on that level it's an excellent choice.

For now, the Palm m515 is representative of Palm OS gaming, with its bright color screen and game-friendly button layout. Many models in Sony's Clié series offer higher-resolution screens and enhanced audio, but few games have yet to take advantage of these features—and most Clié buttons are ill-suited to entertainment. The m515 is thin and light, roughly half the weight and thickness of your average Pocket PC handheld. That makes it easier to slip into your pocket and a whole lot less obtrusive in your business suit.

5 Great Palm OS Games

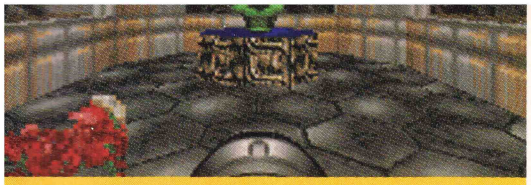
Bejeweled One of the most popular puzzle games for the Palm, and with good reason. Bejeweled's simple premise of matching up shiny jewels is easy to play and hard to put down. Like most of the best Palm games, this game succeeds with its simplicity and playability, and makes for the perfect quick diversion.
$14.95, www.astraware.com

Blocks A freeware version of Tetris, Blocks copies the classic puzzle game excellently. Large, colorful graphics, easy to get into controls, and the same addicting gameplay as the real Tetris are here. Plus, you can't beat the price.
Free, www.electronhut.com

SimCity The classic city-building strategy game fits perfectly on your Palm, letting you plan, build, and manage your own tiny burg wherever you go. Suitable for color and monochrome units, this is a true PC classic, and a welcome addition to the Palm library.
$29.95, www.ateliersoftware.com

Text Twist It's kind of like Boggle, only better. You're given six scrambled letters and two minutes to create as many words as you can. It's tougher than it sounds, and endlessly entertaining. This is the perfect game if you have 5 minutes to kill, or 55.
$14.95, www.astraware.com

Zap!2016 Zap!2016 proves the Palm can pull off some pretty sweet action when it wants to. Although not as intense as some of the WinCE shooters, Zap! is more than able to provide a solid action fix and brings back more than a few pleasant memories of old quarter eating arcade shooters from the 80's.
$14.95, www.astraware.com



5 Great Pocket PC Games

Doom4CE When it comes to classic first-person shooters, nothing compares to Doom. This perfect port of the PC legend lets you tromp through demon-infested military bases, blowing away anything that moves. Amazingly, Doom4CE can use any of the map files from Doom, Doom II, and Ultimate Doom—even user-made maps.
Free, www.jimmysoftware.com

Snails Anyone familiar with the Worms series of games will be instantly endeared to Snails. This clone of that hilarious turn-based battle game pits teams of psychotic, armed-to-the-teeth snails against each other. Physics, strategy, and plenty of laughter are all part of the mix here, and it even supports multiple players.
$11.95, www.snailsgame.com

Tomb Raider The original PC version started a revolution in gaming. Now available for the iPAQ, this incredible action/adventure game can now be played anywhere. Impressive 3D graphics, devious puzzles, and dangerous animals—not to mention 16 vast levels—add up to one of the most incredible PDA games on the market.
$29.95, www.tombraidertogo.com

Turjah Mixing intense action, plenty of weapons and power-ups, hordes of enemies, and superb graphics, this arcade-style shooter (and it's sequel, Turjah II) is top notch in every respect.
$24.99, www.turjah.com

Ultima Underground Thanks to ZioSoft, one of the most revered role-playing games in PC history is now portable. Ultima Underground is a first-person dungeon romp that mixes elements of action and adventure together in one of the deepest and most entertaining RPG's around.
$29.95, www.ziosoft.com

Compaq iPAQ H3850

List Price
$549

Screen Size
2.3" x 3"

Screen Color/Resolution
65,000, 240x320

Internal Memory
64MB

Battery
Rechargeable

Speaker
Internal mono

Headphone Jack
Yes

Expansion
SD slot

URL
www.Compaq.com

Compaq iPAQ H3850

With their fast processors, spacious high-resolution screens and advanced audio circuitry, Pocket PCs are without a doubt the current champs of PDA gaming. The strides in game development for these machines over the last few years have been nothing less than staggering. From arcade emulators to real-time strategy to PC classics like Ultima Underworld and Tomb Raider, the list of top-notch Pocket PC games just keeps growing.

The irony is that Microsoft has worked overtime to position Pocket PC handhelds as business machines, but it's the advanced hardware and robust operating system that make the units such capable game gear. Consider sound: Pocket PCs can generate far more complex effects than most Palms, which are stuck with basic beeps and whistles. The result is that games can sound as good as they look. Unfortunately, you're still going to have to contend with an interface that wasn't designed with gaming in mind, and getting used to the button layout and feel of the iPAQ's directional pad might take some adjustment for Game Boy veterans. (But it still beats the Palm's distinct directional buttons.)

Sharp Zaurus SL-5500

List Price
$449.99

Screen Size
2.2" x 2.9"

Screen Color/Resolution
65,000, 240x320

Internal Memory
64MB

Battery
Rechargeable

Speaker
Internal mono

Headphone Jack
Yes

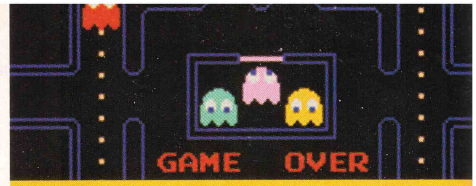
Expansion
CompactFlash and SD slots

URL
www.myzaurus.com

Sharp Zaurus SL-5500

As the only Linux-based PDA currently available, the Sharp Zaurus SL-5500 may seem an unlikely challenger to the well-established Palm and Pocket PC platforms. But consider: it has specs that rival high-end handhelds like the iPAQ (including a fast processor, a high-resolution screen, and expansion slots). It offers a Palm-thrashing sound system and a headphone jack for private gaming. Its open-source operating system bodes well for its future as a gaming machine.

However, the problem here is not one of power or potential, but availability. The Zaurus is a recent arrival (see the review elsewhere in this issue), and there's simply not a lot of software for it yet—games or otherwise. On the upside, a few of the games that have been completed are free to download, and many of them are quite fun. When more steam builds up, the Zaurus should prove to be a serious contender in the world of portable gaming.



5 Great Zaurus Games

Asteroids It revamps the old classic with colorful, high-tech graphics and power-ups, but retains the same thrust-and-gun gameplay of the early-80s quarter muncher. For even more asteroid-busting fun, check out Vectoroids, which mixes beautiful 3D-rendered backgrounds with old-school vector graphics. Both games are:
Free, www.myzaurus.com

Kpacman Classic arcade games seem to be the main fare for the Zaurus, and this port of the arcade hero is terrific. Sporting sharp, colorful graphics, arcade-perfect sound effects, and timeless dot-munching gameplay, this freebie is a perfect piece of nostalgia.
Free, www.myzaurus.com

Tetrix The pre-requisite Tetris game for the Zaurus, and not a bad one at that, Tetrix faithfully recreates the simple block-dropping play of this beloved puzzle game. It remains an ideal diversion for those times when you need some quick, not-quite-mindless entertainment.
Free, www.myzaurus.com

Word Game Essentially a Scrabble clone, Word Game lets you pit your vocabulary skills against either a commendably tough computer opponent or other humans (or both). Although the control interface isn't as intuitive as it should be, this simple yet entertaining board game has loads of replay value.
Free, www.myzaurus.com

ZCheckers Another classic board game revamped, ZCheckers offers Zaurus owners the chance to test their mettle against surprisingly tough AI. Multiple difficulty levels help even the board, but the lack of a true two-player mode is disappointing.
Free, www.myzaurus.com

NEW!

Now Available @ www.handmark.com

MONOPOLY™ BRAND

World's Most Popular Branded Board Games Now On Your PDA!

Energize Boring Meetings!

IR enabled for multiple players; match your game skills with computer opponents or mix computer players with real people.

Available at Staples, CompUSA, Best Buy, Circuit City, Office Max, Office Depot, Fry's, or Micro Center. Get the real MONOPOLY® brand game only from Handmark on CD-ROM or as a download from www.handmark.com for only $29.99, or buy the award winning SCRABBLE® game too, also only $29.99.

Available for sale only in North America.

HANDHELD computing
Best Product 2001 Winner

Best Entertainment Solution
Palm Powered Up Award

Licensed by:

INFOGRAMES™

Hasbro Consumer Products

PALM OS® COMPATIBLE SOFTWARE AND OTHER PALM POWERED™ DEVICES

Mac COMPATIBLE INSTALLATION

Microsoft Windows

FOR PALM POWERED™ PDAS

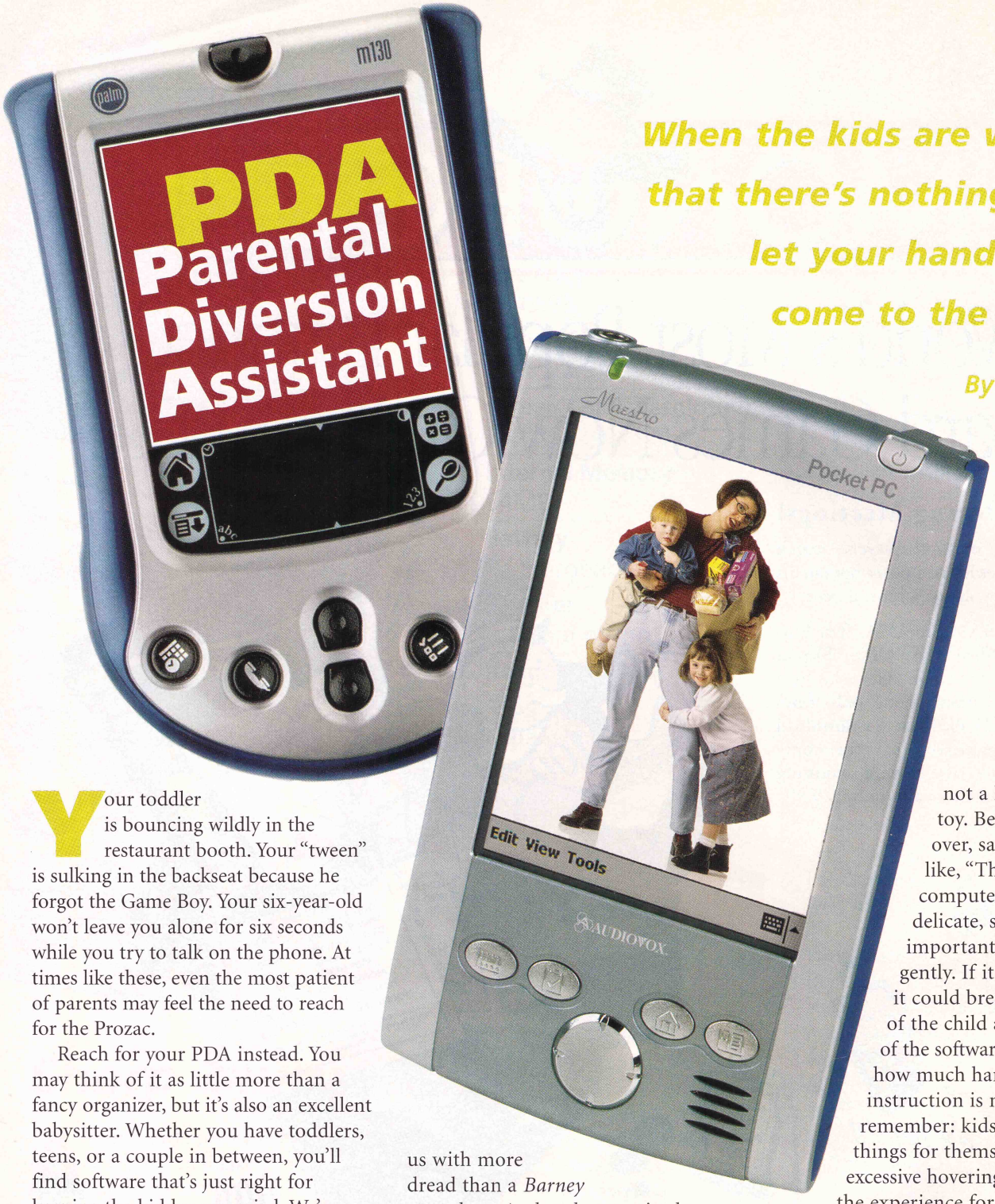
HANDMARK™
tools & toys for a mobile generation
www.handmark.com

© 2002 Handmark, Inc., All Rights Reserved. Handmark, the Handmark logo and associated trade dress are trademarks of Handmark, Inc. © 2002 Infogrames Interactive, Inc. All Rights Reserved. The MONOPOLY name and logo, the distinctive design of the game board, the four corner squares, the MR. MONOPOLY name and character, as well as each of the distinctive elements of the board and the playing pieces are trademarks of Hasbro, Inc. for its property trading game and game equipment. © 2002 Hasbro, Inc. All Rights Reserved. Used with permission. SCRABBLE is a trademark of Hasbro in the US and Canada. © 2001 Hasbro, Inc. All Rights Reserved. Used with permission. Palm OS is a registered trademark and Palm is a trademark of Palm, Inc. Mac OS is a trademark and Macintosh is a registered trademark of Apple Computer, Inc. Windows is a registered trademark of Microsoft Corporation. All other brand names, product names or trademarks are the property of their respective owners. Manufactured in U.S.A *Multiple device play requires purchase of a license for each PDA

PDA Parental Diversion Assistant

When the kids are whining that there's nothing to do, let your handheld PC come to the rescue!

By Rick Broida



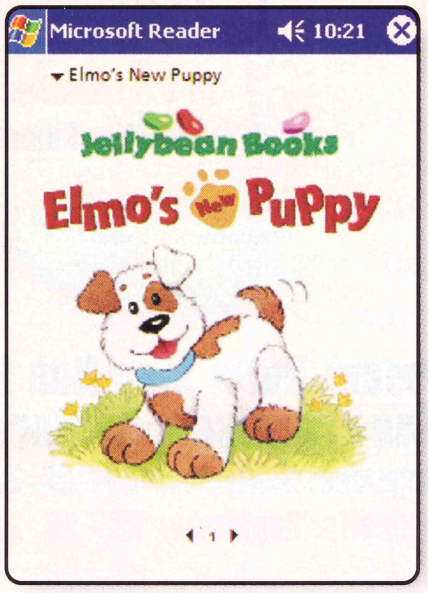
Your toddler is bouncing wildly in the restaurant booth. Your "tween" is sulking in the backseat because he forgot the Game Boy. Your six-year-old won't leave you alone for six seconds while you try to talk on the phone. At times like these, even the most patient of parents may feel the need to reach for the Prozac.

Reach for your PDA instead. You may think of it as little more than a fancy organizer, but it's also an excellent babysitter. Whether you have toddlers, teens, or a couple in between, you'll find software that's just right for keeping the kiddos occupied. We're talking e-books, educational programs, paint programs, music, games, and more, all of it affordable, effective, and undeniably convenient.

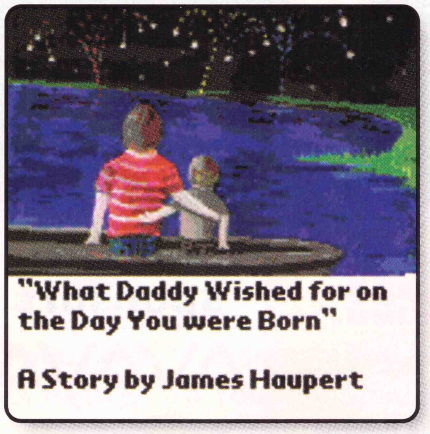
Not wild about putting your precious PDA into the hands of a youngster? We hear you. The thought of sticky fingers mucking up the screen or a dunk into a glass of milk fills us with more dread than a *Barney* marathon. And make no mistake—there's a bit of risk in what we propose. That's we we've devoted some space to the subject of cases, which can help keep your hardware safe from unintentionally abusive kids. See "Case the Joint" for a look at some of the best options.

We also recommend some advance instruction to let tykes know that this is not a Fisher Price toy. Before handing it over, say something like, "This little computer is very delicate, so it's important to hold it gently. If it gets dropped, it could break." The age of the child and the nature of the software will determine how much hands-on instruction is needed, but remember: kids love to do things for themselves, and excessive hovering might tarnish the experience for them.

Your PDA can be more than just a source of entertainment for the kids—it can also be an invaluable reference tool for you. For instance, Web sites like 123Child.com and Parents.com are home to dozens of feature articles covering everything from entertaining a toddler ("The Toddler Activity Pages," 123Child.com) to tantrum prevention



Microsoft Reader



Childrens Illustrated eTales

Nexian NexiCam

("40 Ways to Avoid Tantrums," Parents.com). Just copy and paste them into a note or memo, and you'll always have them at the ready.

Book Smarts

A diminutive PDA screen can't take the place of a large, colorful, tactile book page—but it can do in a pinch. We found a smattering of e-books designed specifically for kids. For Palm Powered handhelds, **Childrens Illustrated eTales** (*www.ddhsoftware.com*) is a collection of four illustrated, toddler-oriented stories priced at $9.99. Pocket PC users can visit the Childrens section at **PDA Bookstore** (*www.pdabookstore.com*), home to three illustrated books—one each for different age groups (3-6, 7-10, and 8-12). Priced at $4.10 each, the stories are also available for Palm OS—but they're not illustrated. There's a much larger selection of Pocket PC-formatted kids' books at **Barnes & Noble** (*www.bn.com*), including Elmo's New Puppy ($2.99), Shrek: Tell Your Own Tale ($6.99), and My Teacher is an Alien ($2.95).

Looking for freebies? You'll find them at **MemoWare** (*www.memoware.com*), which has a Children's section containing several hundred classic titles (none of them illustrated, most intended for kids who can read) from authors like Hans Christian Anderson, Beatrix Potter and the Brothers Grimm. Because most have been converted to the TomeRaider format, they're viewable on both Palm and Pocket PC handhelds (but you'll need the $20 TomeRaider program, which is available from *www.tomeraider.com*).

Photo Op

A digital camera can be the perfect toy for kids large and small, who can take funny pictures of themselves, snap "spy" photos of people around them, or just be creative. Because the shots show up on your handheld's screen, your little Ansel Adams gets instant gratification—and usually a lot of laughs. As with any digital camera, you can delete the pictures later to free up memory, or transfer them to your PC for viewing, printing, or whatever.

Pocket PC owners should check out the $99 **Pretec CompactCamera** (*www.pretec.com*), which features a 180-degree rotating lens, 2x digital zoom, and Type I CompactFlash interface. It captures images at up to 640x480—a far cry from today's multi-megapixel cameras, but more than adequate for fooling around. If you want something a little more serious and own a Compaq iPAQ, the $199 **Nexian NexiCam** (*www.nexian.com*) offers

Continued on page 38

Case the Joint

Gravity happens. Whether you're 8 or 80, there's just no telling when this freakish force of nature is going to yank your PDA to the pavement. Okay, so it's more likely to happen when you're 8, which is why parents should consider a protective case. While it by no means guarantees handheld safety, it can certainly help.

With so many different handhelds out there and even more cases, it's impossible for us to provide a complete list of options. However, what you're looking for is a *play-through* case—one that allows you (or, more accurately, your kid) to operate the PDA while it's still inside. E&B Company (*www.ebcases.com*), Piel Frama (*www.pielframa.com*) and Vaja (*www.vajacases.com*) make stylish, sturdy play-through cases for most Palm and Pocket PC models. We'd start our search with these well-regarded companies.

The 3rd Global Summit On Enterprise & Custom Volume Handheld Computing Solutions

TMC

PLANET PDA™

Including:

Tablet PC Summit™

GPS & Location Technology Summit

Wearable PC Summit

The Fairmont Hotel Atop Nob Hill
San Francisco, California

Conferences: September 24 - 27, 2002

Exhibits: September 25 - 26, 2002

Showcasing Solutions For All Handheld Devices:

- Palm/Handspring/Other Palm OS Devices
- Pocket PC
- RIM/BlackBerry
- Ericsson
- Nokia
- Motorola
- Hybrid PDA/Cell Phones
- Tablets/Wearable Computers
- Linux, Symbian & Java Based Devices

Come Find Ways To Increase Productivity & Profitability With PDA Technologies:

- Field Sales/Service Automation
- Wireless Applications
- Wireless E-Mail
- Products for Your Wireless LAN
- Wireless Internet
- Mobile CRM
- Middleware Implementation
- Linux Opportunities
- Wireless Services Using XML
- Telephony Applications
- Bluetooth Solutions
- Audio & Video Apps
- LAN Access Solutions
- Database Security Issues
- Inventory & Service Mgmt. Technologies
- WAN Access Solutions & Wireless VPNs
- And Much More

Event Sponsors:

AVAYA

ANYCOM™

Media Sponsors:

PLANET PDA MAGAZINE

MODEZILLA

HANDHELD computing

PocketPCmag.com
POCKET PC MAGAZINE

Reserve Your Space Today!

Call Bruce Hirsch At:
203-852-6800 ext. 130
bhirsch@tmcnet.com

www.planetpdaexpo.com

Boost Your Productivity By 500%!

Keep Your Workforce Connected At All Times

- Make Meetings More Productive With Full Text & Voice Collaboration
- Provide Unmatched Levels Of Service To Your Customers
- Automate The Process Of Delivering & Retrieving Documents
- Access & Update Data In Real-Time Regardless Of The Location Of Your Workforce
- Reduce Printing, Shipping & Telephone Costs
- And Much, Much More...

Birds Of A Feather - Breakfast

Thursday, September 26, 2002 7:00 am

Don't miss this chance to expand your knowledge and network at this fun, breakfast get-together. Come get answers to your most difficult questions in this comfortable atmosphere.

Explore Handheld Solutions For The Following Vertical Markets:

- Retail
- Insurance
- Healthcare
- Trucking/Shipping
- Finance
- Government/Military
- Law Enforcement
- Firefighters
- Education

Come Find The Solutions You Need & Get Answers To Your Questions About:

Q: What is the ideal form factor for your specific needs?

Q: Which platform is best for your industry segment? And why?

Q: What are the killer applications for each industry segment and how can you optimize them?

Q: What productivity enhancers can make your business more efficient and more profitable?

TMC PLANET PDA™ BATTLE FOR THE ENTERPRISE

Battle For The Enterprise

The Best-Attended Session At Planet PDA™ Boston 2002!

Don't Miss Platform Evangelists From Leading Companies Explaining Why Their Solution Is Best For Your Company!

Every enterprise is grappling with how to best benefit from the implementation of a handheld computing strategy. It's up to you to set a corporate policy on how and which handheld devices will be implemented. This is perhaps the most crucial decision you can make as you may have to live with today's decision for years to come. This "Battle" is exactly that, a battle to determine which handheld computing solution is best for your organization.

FREE to all attendees!

Pocket Sketch

Teal Paint

Count

Continued from page 35

similar specs but boosts the resolution to 800x600. It also supplies a Type II CompactFlash slot, so you can use a spare memory card for photo storage.

The Sony Clié NR70V already has a digital camera built in, making it an excellent choice for parents. Owners of other Clié models can opt for the **Sony Memory Stick Camera** (*www.sonystyle.com*). True to its name, this tiny module slides into the Memory Stick slot. Its rotating lens makes it easy to take pictures of yourself or anything else, but the resolution is a limited 320x240. That's okay for kid-capades, but impractical for much else. Plus, it's a pricey proposition at $149. There's also a camera in the works for Palm models, but the Taiwan-based company that makes it has yet to secure a U.S. distributor. Watch these pages for a review just as soon as it's available.

Paint and Scribble

Though lots of restaurants nowadays provide crayons and paper menus for kids to doodle, not many airlines, doctor's offices or minivans do. Fortunately, you can turn your PDA into a small but versatile canvas for coloring, scribbling, even a little painting—and there's not a lick of cleanup required.

Many Palm and Pocket PC handhelds have rudimentary scratchpads built right in. On the Palm m100/500 series and i705, the application is Note Pad. On Pocket PC devices, simply select the New menu in the menu bar, then tap Note. But these applets aren't much fun for the budding artist, as they lack any tools to stimulate creativity.

For instance, one of our favorites for Palm Powered handhelds is **Funny Faces** (*adlsoftware.homestead.com/index.html*), which supplies the outlines of various faces, letting kids draw in the eyes, nose, mouth, and so on. Best of all, it's a freebie, and it's equally well suited to color and grayscale screens. Speaking of grayscale, **Gray Paint** (*www.palmgear.com*) offers paint tools, variable brush sizes, high-zoom editing, and even simple animation support. Though fairly sophisticated, it's also easy to use, so it should appeal to a wide range of ages. Gray Paint also costs nothing, but the author accepts $5 donations if you like the program. On the color end of the spectrum, **TealPaint** (*www.tealpoint.com*) supplies a wealth of paint and sketch tools, and even allows drawings to be exported back to the PC for printing, e-mailing, or whatever.

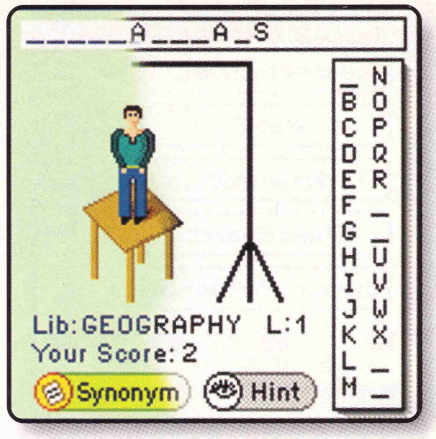
Similarly robust paint programs abound for the Pocket PC. **Pocket Artist** (*www.conduits.com*) is like a mobile version of Adobe PhotoShop, complete with blending, gradient, and layer tools. It's overkill for younger kids, but art-minded tweens and teens are sure to appreciate its capabilities. A decidedly kid-friendly alternative is **Pocket Sketch** (*www.gonna-soft.com*), which seems to have been designed with doodling in mind and comes with a boatload of cute stamps (shapes, faces,

Teletubbies To Go

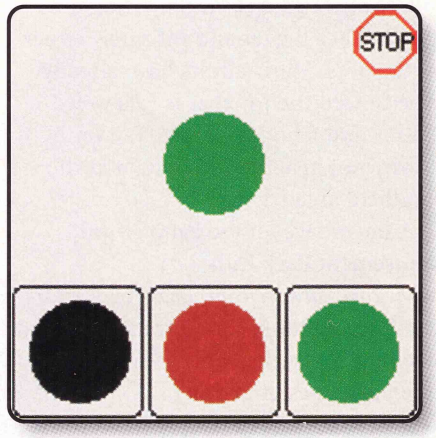
Sure, your handheld PC does music, games, books—but what about TV? Wouldn't it be great for Junior to be able to watch an episode of *Barney, Caillou, Recess,* or another favorite show? It takes a little effort, but it's possible. Pocket PC users, read on—this one's for you. Palm users, turn to this issue's Practical Palm column.

For starters, you need a PC or Macintosh with a TV tuner card, such as ATI's All-in-Wonder. Use the bundled software to record shows to your hard drive—preferably in MPEG-1 format, which is the format supported by **Pocket TV** (*www.pockettv.com*), the free video player we recommend for watching the shows on a Pocket PC. If you can't record in the correct format, **TMPGEnc** (*www.tmpgenc.net*) can convert most video files to MPEG-1. It is not, however, a program for novices, so you may need to enlist the help of your friendly neighborhood geek.

ABC Kiddie Cards



Hot Hangman 3.2



Match Game 1.2

signs, etc.). More kid-friendly still, **KidDraw** (*www.palmgear.com*) works in color and grayscale and provides separate work areas for up to three kids.

Before you open the handheld art shop, we recommend you stop by **FreeScreenProtectors.com** (*www.freescreenprotectors.com*) and order a box. They're available for most models, and if you enter 'FREESP' during the checkout process, you'll pay only the shipping charges. These transparent sheets offer excellent screen protection without compromising readability or contrast.

Music Soothes the Savage Rugrat

You know those Barney, Wiggles, and Disney songs the kids insist on hearing every time you pile into the van? You can load some of those tunes into your handheld PC for easy listening just about anywhere. All Pocket PC handhelds have innate support for MP3 playback, as do many Sony Clié models. All you need to do is "rip" the songs from the kids' favorite CDs, which you can do on virtually any computer with virtually any CD-ROM drive, and convert them into MP3s. Macintosh OS 9 and OS X users can accomplish this task with **iTunes** (*www.apple.com*), a freebie from Apple. If you're a Windows user, we recommend **Easy CD Creator** (*www.roxio.com*), though there are plenty of free and inexpensive CD ripping utilities available online (try *www.download.com*).

For a great source of children's music that's already in MP3 format, visit MP3.com. You'll find dozens of free "sample" songs to download, and low prices if you decide to buy more. We're partial to the music of Graham Clarke, who belts out some of the most amusing kids' tunes we've ever heard. Just try not to smile during "Old McDonald Goes Crazy."

That's Edutainment!

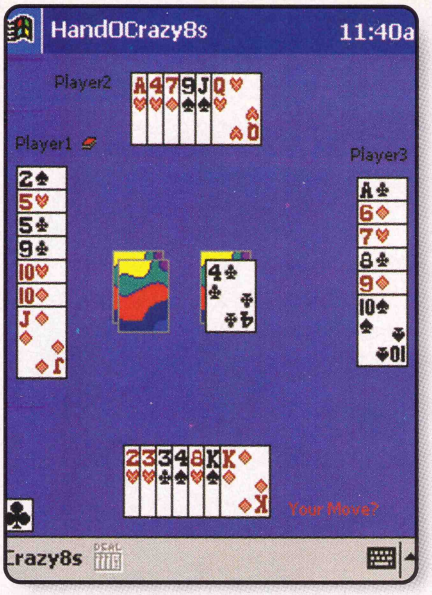
First, the good news: there are some fine and entertaining educational games for handheld PCs. The bad news: they're mostly for Palm Powered handhelds. We scoured high and low, but found no Pocket PC titles that qualified as educational. Fortunately, there are kid games aplenty, as you'll find in the next section.

In the meantime, Palm owners can stock up on learning tools for the tykes. **ABC Kiddie Cards** and **Learn ABC** (*www.palmgear.com*) are flashcard-type programs designed to teach the alphabet. The former utilizes color and cute pictures and costs $5; the latter is free. After they're learned their letters, the little geniuses can move on to **Count** (*www.palmgear.com*), a cute and simple game that uses pictures to teach counting. As all kids' software should, Count disables your handheld's buttons to prevent accidental application switching.

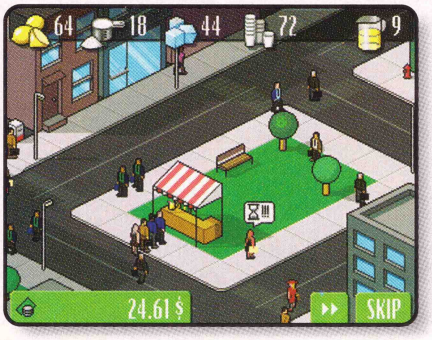
Hot Hangman 3.2 (*www.tblabs.com*) brings the classic game to your handheld, complete with color, high-score tables, and multiple databases containing hundreds of words. Finally, check out **Match Game 1.2** (*www.quizzlerpro.com*), a great freebie for the littlest of learners. A shape, color, number or letter appears in the middle of the screen; the child taps the matching button from a selection at the bottom. The buttons are large

Buy Them Their Own Handheld—It's Cheaper Than You Think!

It's cooler than a Palm. It costs hundreds less than a Pocket PC. It has wireless features not found in any other handheld. It's…a PDA for kids? That's the **Cybiko Xtreme** (*www.cybikoxtreme.com*) in a nutshell. Suitable for ages 10 and up (but even an 8-year-old could operate it), this $99 gizmo sports an integrated keyboard, games galore, school-centric applications like a language translator and scientific calculator, and a wireless transmitter with a 300-foot range. The latter lets multiple Cybiko owners exchange e-mail messages, play multiplayer games, even share photos and files. The company's Web site is home to dozens of additional programs, all free for the download. Hey, let the kids have a turn, okay?



HandOCrazy8s



Lemonade Inc.

enough to allow finger taps, and, as with Count, hardware buttons are disabled.

Games to Go

What can a handheld PC offer that a Game Boy can't? An inexpensive, diverse, and mentally stimulating

Kidz Pak 1.3c

collection of games, all played on a screen that's bigger and infinitely easier on the eyes. Many adults have already experienced the joy that is Bejeweled (Palm) and Chopper Alley (Pocket PC), so why not give the kids a turn at the handheld arcade?

A must-have for the Palm crowd, **Amusement Park Kids** (*www.cakesoftware.com*) challenges your child's recognition, concentration, pattern matching and reflex skills with 10 different games. And don't stop with the Kids version—the developer has "grown-up" editions that are just as fun and accessible. Speaking of amusement parks, **Bang Bang** (*www.astraware.com*) evokes memories of the boardwalk shooting gallery, as you tap to knock down moving and stationary targets. Remember the old electronic game Simon? That's **ATOM** (*www.comcul.com*) in a nutshell: Players must tap the "molecules" in sequence as they light up. Finally, no Palm parent should be without **Kidz Pak 1.3c** (*www.notionssoftware.com*), a collection of five familiar games including connect the dots, word search, and matching pairs.

If you have tweens and teens, let them experience the classics of your youth. **Galax** and **Froggy** (*www.pilotfan.com*) are faithful recreations of Galaxian and Frogger, two of the all-time arcade greats. And don't forget **Tetris** (*www.pocketexpress.com*), which is just as addicting for kids as it was for you.

On the Pocket PC side, the selection is slimmer—but what's there is good. For starters, **iSpyCE** (*www.goldencrater.com*) provides an electronic starting ground for the classic game "I Spy"—a potential lifesaver during long road trips. The program includes rules and ideas for 12 different variants (including restaurants, license plates, and geography).

HandOCrazy8s (*www.birdsoft.net*) recreates the beloved card game for up to four players (one player can also go it alone against the computer). It includes a training mode, customizable game length and speed, and several different gameplay modes. For the single player, nothing beats **Lemonade Inc.** (*www.hexacto.com*), a thoroughly modern version of the lemonade-stand game from the earliest days of computing. The player must manage and run a successful stand, which means finding the right balance of supplies, advertising, location, and recipe. It's a great and entertaining way to learn the basics of business. And when the "sales day" commences, Lemonade looks like a miniature version of The Sims.

Finally, straight from the Game Boy itself (and most console systems) comes **Rayman** (*www.raymanpocket.com*), a faithful and gorgeous port of the popular side-scrolling action game. It features 31 levels, 8 different worlds, and an inexplicably armless/legless hero.◆

Rick Broida is the editor of Handheld Computing *and the father of Sarah, 2, and Ethan, 0.*

World's Best PDA for Kids

If you're in the market for a new handheld and want a model that's practical for both you and your little ones, there's no better solution than the **Handspring Treo 90** (*www.handspring.com*). Its bright color screen, which stays protected from roving fingers by its transparent flip-cover, is ideal for games and paint programs. (In fact, many kid-suitable programs can be run while the cover is down.) The Treo's keyboard is in itself an interesting draw, letting kids try "grown-up" typing, and it's perfect for small hands. Plus, it's less susceptible to "kid errors," like accidental presses of the home and menu buttons found in Graffiti-based handhelds.

Your senior executives want to know what your wireless strategy is...

Your CFO is asking you how much it will cost and what the ROI is...

Your IT director is questioning the security of company files and intranets...

Is the lack of a good wireless solution making you crazy?

CTIA WIRELESS I.T. & INTERNET 2002 has answers to all those questions and more. In one place you can see what wireless has to offer and learn how it can play a critical role in increasing profitability, productivity and efficiency.

CTIA WIRELESS I.T. & INTERNET 2002

where business goes mobile

Host

CTIA

Show Partners

Andrew Seybold's OUTLOOK

Mobility

ERICSSON

MEDICAL RECORDS INSTITUTE

MOCA Mobile Healthcare Alliance

Shorecliff Communications Inc.

wirelessdevnet.com

Sponsors

CIBERNET

CIO

COMPAQ

MOBILE communications • international

WELCOME to Fabulous LAS VEGAS CTIA

20 YEARS OF WIRELESS

Safety: Your most important call

OCTOBER 16–18, 2002 SANDS® EXPO AND CONVENTION LAS VEGAS, NV WWW.CTIASHOW.COM

Living the Bluetooth Lifestyle

A day in the cable-free, wireless life.

By Dave Johnson

It's already 2002, and the future isn't shaping up quite the way we expected. As kids, we envisioned the 21st Century as a place full of artificial gravity space stations, vacations on Mars, talking pets, and big robots that would do the housework and help the kids with their homework.

While Travelocity won't yet take your order for that Martian vacation, what's interesting is that there is a Travelocity at all. The Web caught us all by surprise, as did the very existence of a personal computer on every desktop. Indeed, all kinds of technology snuck in when no one was looking. Like the Web, email has become an unexpected sensation. And to watch crewmembers carry data pads around the Enterprise on any given episode of Star Trek, you'd get the impression that the show's writers never thought of wireless technology.

TDK's BlueM is a sled adapter for Palm models with the universal connector.

It's looking like wireless is the Next Big Thing. We get email wirelessly on i705s, talk to friends on Treos, and access the Internet at home using Wi-Fi. And now Bluetooth is here. Bluetooth is a short-range wireless networking technology that promises to eliminate wires from our lives. Up to 30 feet away from one another, Bluetooth devices can talk among themselves at speeds up to one megabit per second. Equip your office with Bluetooth gadgets and you can retire your tangle of serial, modem, printer, and headset cables.

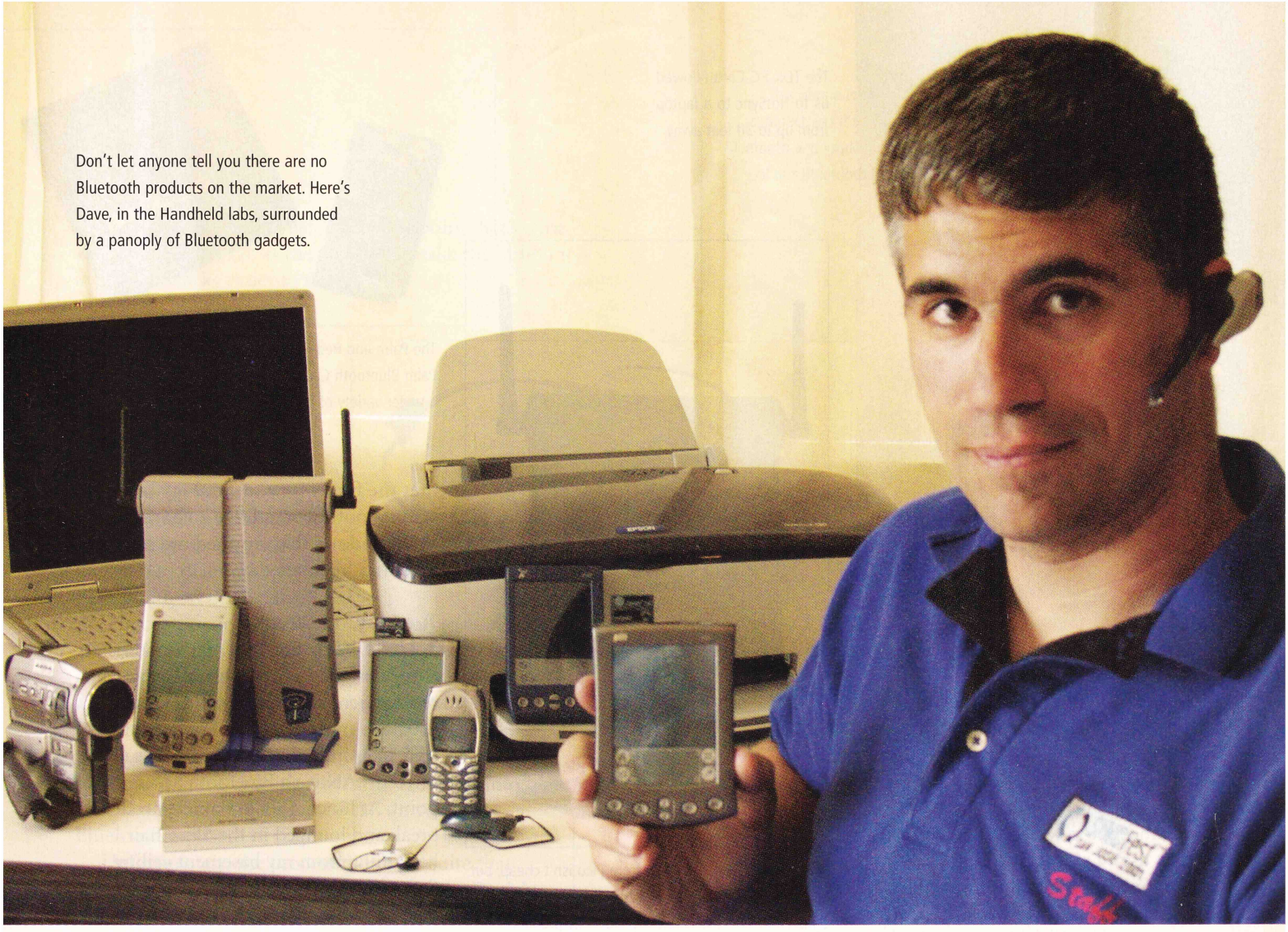
We were sufficiently intrigued by the promise of Bluetooth to see what it would be like to live the Bluetooth life. Is it, in fact, a slice of the Spielberg future, or is Bluetooth just another half-baked technology? There was only one way to find out. We tracked down every Bluetooth gadget we could get our hands on and lived for a week with this basic commandment: If it can be done with Bluetooth, that's the way it will be done. Here's what we found.

The Gear

While there isn't a whole lot of Bluetooth hardware available right now, we nonetheless managed to snag most of it, and it turned into quite a wireless haul. To fully test interoperability and the value of embracing Bluetooth, we started with a few Bluetooth accessories for the Palm. We equipped a Palm m500 and a Palm m505 with Palm Bluetooth Cards ($129), and added Red-M's Blade module ($179) to our Handspring Visor. Finally, we configured an i705 with TDK's BlueM ($199), a sled-style Bluetooth adapter.

For connectivity to PCs, we connected the PicoBlue Internet Access Point ($495) to the hub on our Local Area Network. PicoBlue, from Pico Communications, gives Bluetooth-equipped devices network and Internet access. We also attached TDK's Bluetooth PC Card ($160) to a WinBook laptop. Since we wanted the ability to print from our Bluetooth gadgets, we also installed the Epson Bluetooth adapter ($129) to an Epson C80 inkjet printer.

The heart of any Bluetooth system right now is surely a mobile phone. Sony Ericsson lent us the T68 ($199 from AT&T with a service plan), a tiny GSM cell phone that's one of the few Bluetooth models currently available in the US. Complementing the T68, we had two wireless Bluetooth



Don't let anyone tell you there are no Bluetooth products on the market. Here's Dave, in the Handheld labs, surrounded by a panoply of Bluetooth gadgets.

headsets to work with: the HBH-15 ($199), a boom-style headset that slips over one ear, and the HBH-20 ($199), a new, smaller headset that is less likely to make you look like an air traffic controller.

Finally, we secured the PC-120BT DV camcorder ($1,999) from Sony. This camcorder, which also records 1.3-megapixel still images on a Memory Stick, can upload images to the Internet via a Bluetooth-enabled modem.

The Bluetooth Diaries

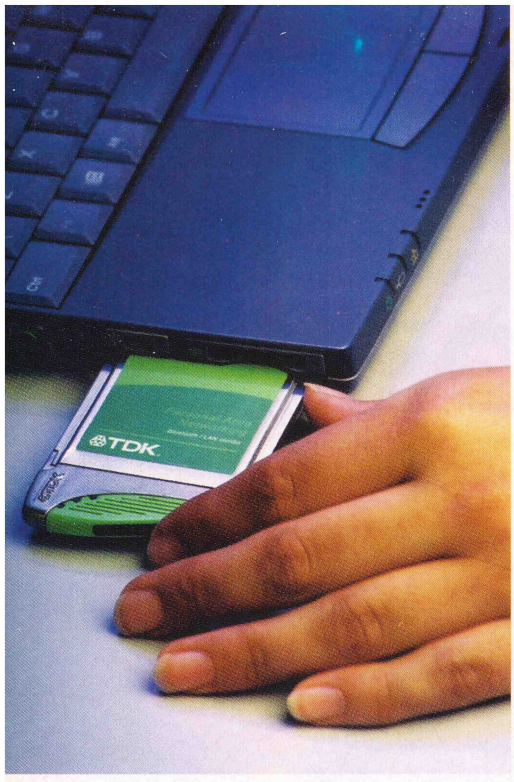
Monday, 9:30 am

Configuring all the Gear. Day to day, Bluetooth devices should automatically locate and connect to each other. But that's after they know each other; there's always the first time that two devices meet. That means, in the words of toy makers, that there's "some assembly required."

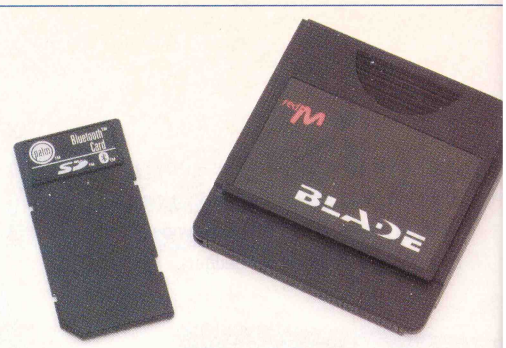
Thankfully, I found that configuring Bluetooth gadgets is pretty painless. Getting the Palm Bluetooth Card operational was a snap, for instance: Just install the software and pop in the card. Getting it "paired" to the phone is almost as easy. Pairing, in Bluetooth speak, is the process of introducing two trusted devices to each other and permitting them to thereafter communicate securely with each other. I paired a slew of gear including the phone, Palms, headsets, and other peripherals in just an hour or so. I was concerned about the PicoBlue access point, since it would have to negotiate its own IP address from Windows XP. Miraculously, I plugged it into the network hub, and, ten minutes later, it was automatically registered as a network node, ready to connect Palms and laptops to the Internet wirelessly. Indeed, it all went so smoothly, I just knew that trouble surely lay ahead.

Monday, 11:00 am

Time to HotSync. Bluetooth vendors claim that our lives will be simpler if our PDAs can automatically synchronize with our PCs as soon as they're in range—no need to slap the Palm in a cradle and press the HotSync button. If you can overlook the fact that you'll have to charge the batteries in the cradle eventually, and that pressing the HotSync button isn't really considered one of the official "Feats of Strength" at the annual Seinfeld Festivus celebration, there's a certain geeky pleasure that comes from performing a HotSync wirelessly.



The TDK PC Card allowed us to HotSync to a laptop from up to 30 feet away.



The Palm and Red-M adapters both worked, but the Palm Bluetooth Card proved better able to deal with a wider variety of hardware and software.

This Bluetooth access point from Pico isn't cheap, but it allows multiple users to access the Web from their Palms and HotSync wirelessly. Our only problem: Windows XP.

My i705 (with the TDK Bluetooth sled installed) had no trouble synchronizing to the WinBook's TDK Bluetooth card. After a short setup process (which was little more than telling the laptop which virtual COM port to use), I tapped the HotSync button on the PDA and it immediately connected wirelessly to the laptop and performed a network HotSync. The sync took a while longer than usual, since Bluetooth is slower than USB, but it worked flawlessly—even when I separated the Palm from the laptop by distances up to 20 feet. The moral of the story: whenever possible, stick with Bluetooth hardware that has the same daddy, like these TDK gadgets.

The m515 didn't fare so well, mainly because I was trying to connect to a LAN, not directly to a single PC. The goal was to perform a Network HotSync by connecting the m515's Palm Bluetooth Card to the PicoBlue access point, through the hub, and then on to my primary PC. If you've already guessed "network problems," consider yourself a winner.

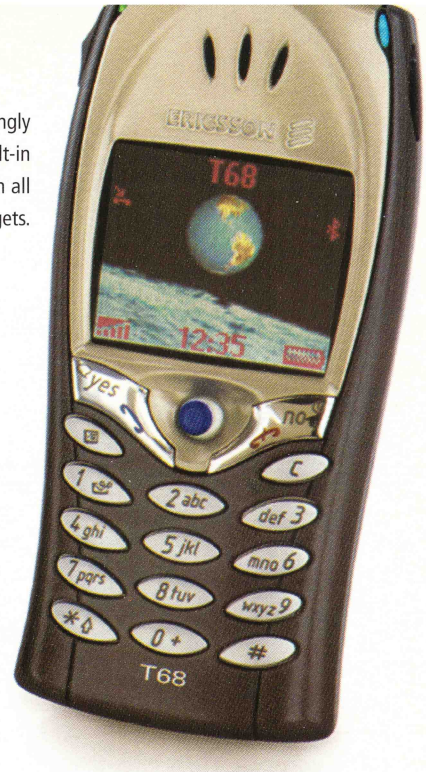
A Palm program called PicoSync is supposed to simplify the process of performing these kinds of connections. After installing and configuring the software, I spent the entire rest of the day troubleshooting the fact that the Network HotSync would almost, but never quite, happen. The great tech folks at Pico Communications even got involved. By the end of the day, we solved the problem: it was Microsoft's Windows XP firewall. After disabling it, I was Network HotSyncing like a pro from 20 feet away. The ironic thing is that the funky new technology known as Bluetooth worked like a charm; it was Windows that stopped me cold for an entire business day.

Tuesday, 11:00 am

A Little Web Surfing. Bluetooth is really designed primarily as a "cable replacement" technology, but you can use it for more elaborate applications as well, like siphoning Internet access out of your LAN via a Bluetooth access point. At lunch, I took a much-needed break and lounged in the Sky Chair I have hung from my basement ceiling. Swinging sedately, I tapped on my Palm m515's Eudora Web browser and surfed the Web. My experience, of course, was limited to about 30 feet from the access point, but for the first time ever, I saw Web pages on the Palm snap onto the screen very nearly as quickly as if I was using broadband on my desktop PC, thanks to the 1Mbps wireless connection.

Surfing through a Bluetooth access point is a smooth and effortless experience. Not only do Palm Web browsers recognize the Bluetooth path back to your LAN-based Internet connection, but I was able to update AvantGo channels and access Palm PQA sites as well.

This surfing experience was marred by one major glitch. Since I had most recently configured the PDA to talk to the mobile phone, the Palm would only try to connect to the phone, not the local area network that was right in front of it. After a little experimentation, I discovered that you need to explicitly tell your Palm which network to use—the phone or LAN. The option to configure your current network isn't anywhere that's particularly easy to get to, and a novice would no doubt go batty trying to solve this particular problem. Bottom line: Bluetooth devices should be smart enough to switch to whatever network is actually available, be it an in-

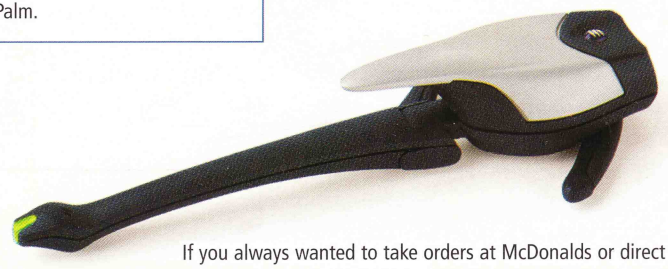


This phone is amazingly compact, yet it has built-in Bluetooth and worked with all of our Bluetooth gadgets.

range cell phone or a Bluetooth access point that's close enough to smell. Or, at the very least, make the option to switch networks easier to find.

Tuesday, 2:00 pm
On the Phone. Time to make some phone calls. This should be where Bluetooth really struts its stuff, so I had high expectations. I confidently pocketed the cell phone—I wouldn't be needing it—and started dialing from the PDA's Address Book. Here's the concept: since you're already holding the PDA anyway, you simply pick a phone number from the Palm and the PDA dials the phone automatically. No need to pick up the phone and potentially blast harmful radiation into your skull: you simply take the call on your Bluetooth headset.

This Bluetooth headset was a pleasure to use. The lightweight earbud doesn't draw attention to itself, and a control pod clips to your shirt. Downside: it wouldn't work in conjunction with the Palm.



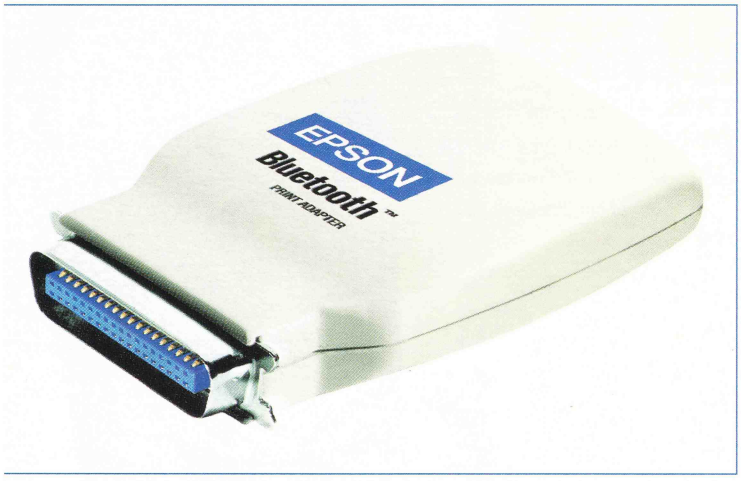
If you always wanted to take orders at McDonalds or direct aircraft, this is the headset for you. On the plus side, it worked just fine when we dialed from the Palm.

Unfortunately, the process didn't go quite that smoothly. Starting with the Visor, I used the Blade's bundled dialing program to send a phone number to the handset. The handset began dialing, but instead of transferring the call-in-progress to the Bluetooth headset, the phone wouldn't release the call and I had to fish it out of my pocket to sheepishly talk to someone who suspected he was the brunt of a prank call. I tried troubleshooting this glitch for hours, and eventually asked the tech folks at Sony Ericsson. Surprisingly, they'd never tested their phones with both a headset and PDA together! In the final analysis, I concluded that the Blade module exerted some sort of fiendish death grip on the phone's Bluetooth channel, which kept the headset from being able to take the call. I experimented with dialing from the Visor and immediately turning off the PDA. Eventually, I got to the point where I could usually dial on the Visor and start talking into the headset, but there would always be times when the call would stay on the handset—snug in my pocket—despite my best efforts.

I had better luck with Palm's Bluetooth card. The m515 was much better behaved and routinely released the handset's Bluetooth channel in time for the HBH-15 boom-style headset to take the call. All that changed, though, when I tried using the significantly sleeker, stealthier HBH-20. This newer headset sent me back to square one, with the headset unwilling to take a call that was initially dialed by either the Palm or Visor.

It's worth pointing out that the headsets and the phone always worked fine as a pair—it was only when I tried dialing from the PDA that things went bonkers. For such a seemingly elegant way to use your mobile phone, it's clear that no one has thoroughly tested this particular combination of gadgets for compatibility. Weird.

Wednesday, 9:30 pm
Mobile Web surfing. I had to run some errands before lunch, so I found myself out on the town with a PDA and a Bluetooth mobile phone. I did what anyone in my shoes would have done: I decided to check email and perhaps do a little Web surfing. I pulled my Visor out of my pocket and opened my email client. As soon as I told the Palm to check for messages, I got a distressing error message: pairing, apparently, hadn't been configured between my PDA and the cell phone.



The Epson Bluetooth Print Adapter turns the C80 inkjet into a wireless printer for your Palm (as well as for your desktop PC and laptop).

On what planet, exactly, hadn't pairing been configured? I spent all of the previous afternoon dialing the phone from the Visor! I stepped through the configuration process of pairing the Visor and phone. It's not complicated, but it takes several minutes for the two devices to "discover" each other and shake hands. It's a process you should only have to do once, but I found that the Visor's Blade module and the T68 mobile phone would lose track of each other on a routine basis. By the end of the week, I'd re-paired those two gadgets a half-dozen times. I didn't have similar difficulties when surfing with the m515.

After re-pairing the phone and PDA, I surfed in wireless bliss with the phone tucked once again in my pocket. Since there's no GPRS available in my town (GPRS is a broadband-like upgrade to the GSM mobile phone network that should soon be sweeping the US), I had to use the mobile phone like an ordinary dial-up modem. It connected at sluggish dial-up speeds, and I had to connect through my Earthlink account, which charges for connect time. Despite the headaches, it actually worked. I couldn't resist surfing the Web while waving my hands around the PDA like a magician, saying, "Look! No wires!"

Wednesday, 2:00 pm
Instant Messaging. No one hates meetings more than I do, and so I took a weekly Handheld Computing conference call as a golden opportunity to test one of the Palm Bluetooth Card's coolest features. Every Bluetooth Card comes with a few inter-Palm apps: BlueChat and BlueBoard. Using these apps, you can conference up to three other Palm users into a circle of clever drawings and witty banter.

I started BlueBoard and invited another Bluetooth-enabled Palm into my session. The software worked flawlessly, allowing us to make silly drawings and other important work-related sketches, with our drawings appearing instantly on each other's PDAs. BlueChat is much the same, though instead of drawing, you get to write text messages to each other. These apps only come with Palm Bluetooth Cards, though, and they're not beamable to other PDAs. Don't even think about using the Palm CD-ROM to install the apps on a Visor (like I did). These Bluetooth applications require OS 4, and since Visors have OS 3.5, they'll just hose your PDA (like they did mine).

Thursday, 8:30 am
Email Some Bluetooth Photos. While most Bluetooth action is focused on PDAs and cell phones, this cool little wireless technology is sure to eventually pop up all over the place, like in desktop computers, keyboards, mice, wristwatches, and fountain pens. For now, one of the most unusual places to find Bluetooth is in cameras. Sony kindly lent us the PC110BT, a "Bluetooth ready" compact digital camcorder. Why would you want a camcorder with Bluetooth? So you can email photos, that's why.

Sony's foray into Bluetooth. The modem on the right plugs into a phone outlet, and communicates wirelessly with the camcorder to send pictures via email.

That's cool. But a Bluetooth camcorder—at least in its current state of evolution—is a lot less fun than it might sound. After taking some pictures of my cat and storing them on the camcorder's Memory Stick, I decided to send them to fellow HHC'er Rick Broida. To do that, I followed the camera's on-screen menus to send selected pictures via email (I could also upload them to a special Sony-operated photo-sharing Web site). Here's what I found: entering email addresses on a camcorder is awkward, and the camcorder's only use of Bluetooth is to wirelessly connect a small, standalone modem to the camera. I couldn't connect the camera to a Bluetooth mobile phone, for instance, or use the Bluetooth access point. Nor could the camera use Bluetooth to send images direct to the Palm. That begs the question: why bother with Bluetooth? Sony should have just connected the modem to the camera with a cable.

Friday, 8:00 am

Printing My Schedule. I've always been obsessed with printing from my Palm, and often print my itinerary, especially when I travel. I have the Sipix Pocket Printer and a slew of print drivers that keep me ready to print almost anything. I even have an IR port on my desktop laser printer. But Bluetooth and its remote printing capabilities potentially puts them all to shame.

Getting ready to leave town for the weekend, I decided to print my schedule. I had already installed Epson's Bluetooth Print Adapter on a C80 inkjet printer and loaded the Bluetooth-aware printer driver on the Palm, so I was all set for wireless printing. Right now, though, Bluetooth imposes some serious limitations. Epson's Bluetooth Print Adapter, which is just about the only one you can buy, works with a narrow range of Epson printers, and if you want to print from a Palm-powered PDA, your only option is the C80. Just to add another layer of complexity to the process, the only Palm-compatible Bluetooth print driver is BtPrint, from IS/Complete. Using the version of the driver that Epson includes with the Print Adapter, I could print from the Palm's built-in programs, like the Date Book, Address Book, and Memo Pad. IS/Complete has upgraded the driver on its own, though, and when I installed the updated version I was also able to print Documents to Go and WordSmith documents.

All that is a bit confusing, but the good news is that there were absolutely no configuration glitches at all. The Palm discovered the C80 without a hitch, and I was printing in minutes. On the other hand, BtPrint requires OS 4 or higher, so this was yet another time that the Visor had to sit on the sidelines. If Bluetooth catches on, expect to see more print drivers upgraded to support Bluetooth.

Our Bluetooth Test Suite

Palm Bluetooth SD Card
$179
Palm, Inc.
www.palm.com

Blade Bluetooth Springboard Module
$179
Red-M
www.red-m.com

BlueM
$199
TDK
www.tdksystems.com/blueM/

PicoBlue Internet Access Point
$495
Pico Communications
www.pico.net

Bluetooth PC Card
$160
TDK
www.tdksystems.com/blueM/

Epson Bluetooth adapter
$129
Epson
www.epson.com

Sony Ericsson T68
$199 (with service plan)
Sony Ericsson
www.sonyericsson.com

Sony Ericsson HHB-15
$199
Sony Ericsson
www.sonyericsson.com

Sony Ericsson HHB-20
$199
Sony Ericsson
www.sonyericsson.com

PC-120BT DV Camcorder
$1,999
Sony
www.sony.com

Bluetooth In a Nutshell

After living with Bluetooth for a week and trying every imaginable application for this fledgling technology, here's the skinny:

- There's no doubt that the world is going wireless. Bluetooth is the first taste of our eventual liberation from wires, cables, connectors, and plugs.
- It really works! That's not a rousing endorsement, we know, but Bluetooth done right (like Web surfing 30 feet from your cell phone) is very, very cool.
- Bluetooth is still expensive. Analysts talk of the day when it'll cost just a few dollars to put Bluetooth in all of our gadgets, but right now it typically entails a $100-$150 premium on any product.
- Interoperability is still an issue. Your printing options are quite limited, for instance, and we had quite a bit of trouble getting headsets, handhelds, and phones to all play nicely.
- Right now, Bluetooth is for people who don't mind tinkering. If you want to plug in your Bluetooth stuff and go, you'll probably have to wait another year. ◆

4...3.2...2...

Counting down from four megapixels to one, these compact cameras prove that bigger's not always best.

by Dave Johnson and Denny Atkin

Some photographers have so much gear that they need an assistant to help them carry it all. We're sure that if you had an assistant—or perhaps a mule—to help lug your camera around, you'd take more pictures. With a new, compact digital camera, you can make sure you don't miss those important shots, without investing in mule feed and a stable. We recently took a look at four svelte digital cameras with megapixel ratings ranging from less than one all the way up to four, and found plenty of choices for photographers looking for a camera they can bring along without thinking twice.

Kyocera's Finecam S4 is a tiny four-megapixel camera.

Kyocera Finecam S4

One of the smallest and lightest four-megapixel cameras on the market, the Kyocera Finecam S4 is unfortunately more impressive in specifications than in actual use.

And those specifications do sound good. The S4 measures a compact 3.4x2.2x1.2 inches, about the size of a tall pile of credit cards, and weighs in at about 6 ounces. It features a 3x optical and 2x digital zooms, and can shoot images up to 2272x1704 pixels in size.

With cameras in this price range, you expect a fair amount of manual control, and here the S4 does well for a compact model. You can set exposure compensation and white balance, and there's a manual focus setting. While the camera does have manual aperture control, it only allows settings of F2.8 or F9.6. The camera offers only one ISO setting, equivalent to ISO 64. There's a long-exposure mode for night shots.

Kyocera Finecam S4
Kyocera
www.kyocera.com
$599

4 Megapixels, 3X optical zoom, SX/MMC card

Pros
- Very compact
- High-resolution
- Good controls

Cons
- Too much lag between shots
- Mediocre images
- No audio on movies

C+

1...Snapshot!

Controls are very well laid-out, with a four-way pad making selection easy.

When turned off, the camera protects everything except the LCD screen, making it easy to pocket. Press the power button and the lens extends and the flash pops up. The camera works well as a point-and-shoot; you can hand it to a non-photographer with no worries. The time between shots can be frustrating: about eight seconds with flash, or four seconds without. Shots are stored on SD/MMC card, making transfer to or viewing on many PDA models easy. The included 16MB card stores only about five shots at SuperFine quality, so be sure to factor in the cost of additional cards into the purchase price.

Unfortunately, although the S4 boasts plenty of pixels in each shot, it doesn't make very good use of them. Images were the softest we'd seen from a four-megapixel camera, with less detail in our test subject cat's fur than seen in shots from Canon's two-megapixel S330. Color saturation is also muted, lacking the intensity found on the other cameras we tested. The S4 can shoot short movies, up to 15 seconds, but without sound.

Overall, we were impressed with the physical design of the S4, but in the end it's the pictures that matter. It appears Kyocera may be trying to cram too much into too small a space, because despite the four-megapixel resolution and premium price, the S4's photos are more on par with shots from inexpensive three-megapixel cameras.

Toshiba PDR-3310

The Toshiba PDR-3310 is an ultra-compact digital camera for a different kind of photographer—those who want more control over the pixels they shoot.

Toshiba's PDR-3310 offers a number of manual settings for more experienced photographers.

The PDR-3310 has a credit card profile, but it is 1.25-inch thick and weighs in at 6 ounces. In this tiny frame, Toshiba packs much of the power and flexibility you'd find in a much larger camera: a 3.2 megapixel image sensor, multiple exposure controls, white balance settings, exposure compensation, and even a movie mode.

When you turn on the camera, the flash and zoom lens automatically pop out of the camera's boxy frame. You can just start taking pictures in the camera's programmed exposure mode, or access all of the camera's settings from the small LCD screen in back. If you want to try your hand at controlling the image's depth of focus, for instance, you can switch to aperture-priority mode and choose one of

Toshiba PDR-3310
Toshiba
www.dsc.toshiba.com
$499

3.2 megapixels, SD card, 3X optical zoom

Pros
- Excellent image quality
- 3X optical zoom
- Multiple exposure options

Cons
- Fingers get in way of lens
- No sound capture for movies
- Most features buried in on-screen menus

B

two aperture settings. You can switch metering modes, change the sensitivity for low-light, and switch to long-exposure mode for night photography. The camera also features a 3x optical zoom, 2x digital zoom, and a close-focus mode for macro-photography.

Toshiba includes a 16MB SD card in the box, which is good for about 7 best-quality high-res shots, 15 standard high-res photos, or 59 images at 1024x768-pixels. You can capture up to 15 seconds of 320x240-pixel movies as well, though, since the camera lacks a microphone, you won't get any talkies.

All that adds up to an impressive amount of performance in a tiny frame. Perhaps too small—we repeatedly got our fingers in the way of the lens, a problem that didn't happen with the Pocket Digital thanks to a slightly different camera layout. The small size also puts the vast majority of the camera controls in on-screen menus instead of easy-access buttons; that makes it hard to change modes quickly, and we ended up shooting in the default program mode most of the time. Those complaints aside, this is a great little camera that takes outstanding photos.

Canon's decades of camera-building experience show in the PowerShot S330.

Canon PowerShot S330

At first glance, Canon's PowerShot S330 Digital Elph may not seem that impressive. After all, although it's still pocket-sized, it's the largest camera reviewed here, and shoots images at a mere two megapixels. By the time we were done testing, we were surprised to find this was our favorite camera in the bunch.

The S330 measures 3.7x2.5x1.2 inches and weighs in at just over eight ounces. It will fit in your jeans' pocket, but you'll definitely know it's there. The heft comes from its rugged, metal case, which looks primed to stand more than its fair share of abuse. Like the Kyocera and Toshiba models, the lens retracts fully when not in use to allow easy pocket carriage.

The lens offers 3x optical zoom, as well as a close-focus feature for macro photos. (If you can get by with 2x, Canon offers the S200, which is closer to the Toshiba and Kyocera models in size.) While we don't think digital zoom is of much use to anyone who knows how to use an image-editing program, it's worth noting that the 2.5x digital zoom gives a combined total zoom of 7.5x, slightly better than the competitors. The built-in flash doesn't pop up, and its proximity to the lens makes the S330's red-eye reduction mode particularly useful.

Control layout is extremely logical, and is significantly improved over earlier Digital Elph models. Most common settings are now just one or two button presses away. While the S330 doesn't allow manual aperture or shutter settings, it does let you choose ISO settings of 50, 100, 200, or 400. The camera offers exposure compensation, evaluative or spot light metering, and manual exposure settings from 1 to 15 seconds for low-light shots.

Images taken with the S330 are very impressive. While they're low on resolution—2 megapixels, or 1600x1200 pixels—they're high on detail. Shots are extremely sharp at all zoom levels, with rich but not exaggerated color and excellent skin tones. Overall image clarity is actually better than some 3 and 4MP cameras we've tried, although keep in mind that with only 2MP to work with, cropping and zooming can quickly result in a pixelated image. The S330 has a microphone that lets you voice-annotate your photos. You can even grab AVI movies, complete with sound, at up to 30 seconds in length depending on

Canon PowerShot S330
Canon
www.powershot.com
$399

2 megapixels, CompactFlash card, 3X optical zoom

Pros
- Superb image quality
- Built like a tank
- Logical, instant-access controls
- Excellent Macro mode

Cons
- Slightly larger and heavier than other pocket cams
- Videos limited to 30 sec.
- Only 2 megapixels

A-

resolution. Images are stored on CompactFlash card; plan to buy a roomier companion to the ridiculously cramped 8MB card included.

With it excellent control layout, top-notch image quality, and useful mini-movie mode, the S330 proves that sometimes a camera is more than the sum of its specifications.

Logitech Pocket Digital

Just when you think that cameras can't get any smaller, along comes something like the Logitech Pocket Digital. This 1.3-megapixel wonder is about 3/8-inch thick and almost exactly the same size as a credit card—meaning that it slips so effortlessly into your pocket that you can carry it anywhere, anytime. Leave it with your wallet and keys, and you can make carrying it a regular part of your morning routine.

The camera is almost Zen in its simplicity. It slides open to reveal the lens and viewfinder; the only controls are a shutter release and two buttons that control resolution (640x480 and 1.3 megapixel modes), erasing images, and a self timer (bizarre, considering the lack of tripod mount). There's no LCD display to see or preview your images. Instead, the camera has a window-style viewfinder for framing your shots.

For snapshots, the camera is simply magnificent. It is so small that there's no reason not to carry it around, and there are no settings to get in the way of taking pictures instantly. When you get back to the PC, plug the Pocket Digital into your USB port and a wizard asks you into which folder it should transfer the images—and it automatically deletes the images off the camera, making you ready to shoot again in seconds.

The Pocket Digital holds 52 pictures in its internal memory, and an integrated rechargeable battery tops off the camera's power each time you hook it up to your PC's USB port.

Logitech's Pocket Digital lacks features, but it's a no-brainer to bring along.

Of course, the Pocket Digital is fraught with compromise—you can't expect the world from a camera the size of a credit card. The camera has no flash, and thrives outdoors in bright light. Even photos taken indoors at mid-day suffer from digital noise and color bleeding. The camera's image sensor is really 640x480-pixels, not 1.3 megapixel—so all of your higher-resolution images look slightly fuzzy from enlargement. We were also annoyed at the way the PC software kept recreating a Pocket Digital folder on the PC, even if we chose to store the images elsewhere.

The camera hides a surprise, though. A feature called Autobrite automatically balances bright and dark areas of an image (such as a picture of someone with the sun to their back), for a reasonably well-balanced photo—something even a $2,000 camera requires human intervention to accomplish.

Logitech Pocket Digital
Logitech
www.logitech.com
$129
1.3 megapixels (interpolated), USB connection, no memory card, no zoom

Pros
- Credit card-sized
- Effortless file transfers
- Simple point-and-shoot controls

Cons
- No zoom or flash
- Mediocre images
- No exposure controls

B-

Is that a Camera in Your Pocket?

You won't frame any pictures you take with the Pocket Digital, but the camera's ultra-low profile makes it a natural part of your everyday experience. This is a camera you might actually have handy when the aliens land to experiment on your cows. The other cameras in our roundup try to be just as portable for more serious photographers, but they're more likely to be left behind as they will require a dedicated pocket. Still, they're easier to bring along than larger cameras that must hang from your neck or shoulders. The cameras here have plenty to offer the typical point-and-shoot photographer, and more experienced shutterbugs will find them good lightweight companions to bulkier cameras that aren't always easy to bring along on family outings.◆

Reviews

Sony Clié PEG-T665C

A power-hungry musician

The T665C's hi-res launcher lets you see more of your installed programs at once.

While the Sony Clié PEG-T665C uses a modified version of the stylish half-inch-thick case introduced on the T615C, its insides have more in common with Sony's high-end NR70. This handheld is powered by a speedy 66MHz Dragonball SuperVZ processor, the fastest CPU currently found on Palm OS handhelds. This is backed up by 16MB of memory, Palm OS 4.1, and a Memory Stick expansion slot.

Screen resolution is 320x320 pixels, with 16-bit color. The display is bright and readable in all lighting conditions. The T665C, like the NR70 series, has superb screen quality. The lighting is brighter than the N760C, and the colors are more true-to-life than the T615C.

The T665C plays MP3 and ATRAC3 files via the built-in speaker or through earphones.

And with the speedy 66MHz processor, animations run more smoothly than on earlier 33MHz devices.

Again taking a note from the NR70, the T665C boasts impressive audio. The speaker is very loud—not just loud enough to be noticed, but loud enough to function as a travel alarm for deep sleepers. The audio chip can play back MIDI and converted WAV sounds, like the T615C, but it also plays ATRAC3 and MP3 music files. You can play music through the built-in speaker, but you'll want to use the included earbuds or a decent set of headphones for best results. The wired remote present on earlier musical Cliés is missing here, but the earbuds do feature a volume control.

The enhanced infrared transmitter not only works for beaming and IR HotSync, but also doubles as a remote control. The Remote Commander software is easy to set up, but isn't configurable, and doesn't support TiVo players. Other bundled software includes Clié Paint, the PictureGear Pocket photo album, gMovie player, World Alarm Clock, and Documents to Go Standard Edition for editing and viewing Word and Excel files. Particularly nice is Sony's Clié Mail app, which lets you send and receive messages, complete with attachments, either via HotSync or an attached wireless modem.

The T665C packs a lot of power into a very small form factor; only Toshiba's e310 Pocket PC offers similar speed and capabilities in such a small package. Unfortunately, all of this comes at a cost in battery life. In continuous heavy use, we got just over four hours of usage from the T665C between charges using the built-in, non-removable battery. This means you could easily run out of power on a cross-country flight. You can extend the life using the optional $39.99 PEGA-BC10 Battery Adapter, which uses four AA batteries to power and charge the handheld. Sony has brought back a favorite feature of its earlier Clié models here—you can use the cradle's power brick to recharge the handheld when you're traveling, thanks to a small HotSync connector adapter.

Besides the short battery life, our only real gripe is with the T665C is the button design. The long, thin application buttons are annoying, but it's the nearly useless up/down rocker will really make you appreciate Sony's inclusion of a jog dial for navigation.

An evolutionary design, the T665C is nevertheless a very impressive device for the price. Just don't stray too far from your charging cradle.

–Denny Atkin

Sony
www.sony.com/clie
$399.99

Palm OS 4.1, 16MB, 320x320 color, MP3 audio, Memory Stick slot

Pros
- Fast
- Thin and light
- Excellent audio support
- Good software bundle

Cons
- Short battery life
- Poor button design

B

msp

mySmartPhone.com

SMARTPHONE CASES

SCREEN PROTECTORS

CLEANING KITS

SYNC-N-CHARGE™ CABLES

4 IN 1 STYLUS PENS

mySmartPhone.com

10% off

ACCESSORIES DESIGNED FOR
Handspring Treo
Kyocera SmartPhone
Samsung and
many more!

USE COUPON CODE:
HHMAG1

© 2002 Incipio Technologies, Inc. All trademarks are the property of their respective owners.

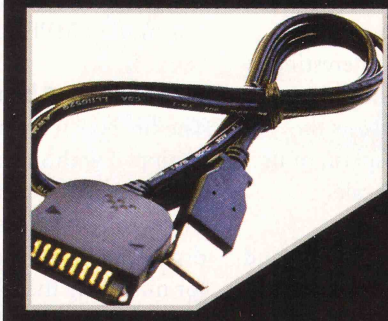
PDAZOO.COM

MOBILE GEAR FOR SURVIVAL IN THE URBAN JUNGLE

800.300.7321

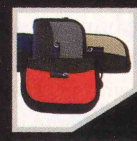
10% off

USB SYNC-N-CHARGE™ CABLES



This cable uses the power off of your USB port to charge and synchronize your handheld computer. No need to carry heavy power adapters or cradles.

Windows, MAC and NT Compatible



PDA CASES

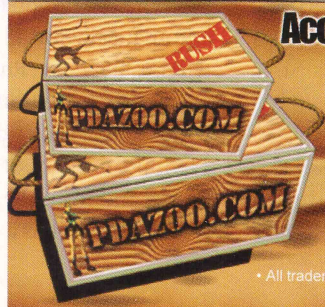
SCREEN PROTECTORS

REPLACEMENT STYLI

PALM V KEYBOARD

PDA ACCESSORIES

10% off
Use Coupon Code: hhmag1
visit: pdazoo.com/hh



Accessories designed for:
Palm, Handspring
Sony, Pocket PC
Kyocera and
many more.

© 2002 Incipio Technologies, Inc.
• All trademarks are the property of their respective owners.

reviews

Toshiba Pocket PC e740

Going next-gen with WiFi and Xscale

Toshiba is certainly making a quick name for itself in the PDA market. While its first foray into the Pocket PC market, the Genio, was unexceptional, its current models are among the most interesting handhelds available today. The e310 is the thinnest, lightest Pocket PC. Now the Pocket PC e740 is making a splash of its own with a 400MHz Intel XScale processor, built-in WiFi wireless networking, a pair of expansion slots, and an innovative expansion module.

Performance Anxiety

At the heart of the e740 is an Intel Xscale PXA250 processor running at 400MHz, backed by 64MB of RAM. This chip has been a source of much controversy. It has nearly double the megahertz rating of the 206MHz StrongARM chips used in earlier Pocket PC 2002 devices, so many users expected it to deliver double the performance. Instead, most operations are only slightly faster, and a few are even a bit slower. There are a variety of reasons for this, some architectural, and some dealing with the lack of Xscale optimizations in the Pocket PC 2002 operating system. But while the performance may not live up to the hype and expectations that preceded the first Xscale PDAs, it's not "bad." General operating system functions take place at about the same speed as on StrongARM devices, and some games and other CPU-intensive applications are noticeably smoother.

Ironically, considering the e740 has a dedicated ATI Imageon graphics chip, current video playback applications run slower than on other Xscale Pocket PCs, such as the iPaq 3900 series. Motion video displays at speeds similar to what you see on slower StrongARM devices. Once more applications are optimized for the Imageon chip, video performance should improve. ATI has shown a beta video player that takes advantage of the Imageon's features to provide smooth, full-motion MPEG4 video playback.

Expansion Abounds

The Imageon chip allows an e740 equipped with the optional $99.99 expansion pack to output to a VGA monitor. Software is included for displaying PowerPoint presentations and for mirroring the e740's screen on an external monitor. (And this is just about all the bundled software, besides the usual Pocket PC 2002 applications.) The expansion pack also boasts a USB port; we were able to attach the USB Microsoft Natural keyboard Pro from our desktop PC and use it to enter data on the 740. Usability of other USB devices will depend on the availability of Pocket PC drivers. We haven't seen a foldable keyboard compatible with the new Toshiba models yet, but you could always buy a compact USB keyboard and toss it in your briefcase.

The e740 is the first PDA with a built-in 802.11b WiFi radio. (Toshiba also manufactures a Bluetooth model, but it's available only in Europe.) We were able to get the WiFi connection up and running by simply selecting our local LAN in the Wireless LAN Utility—it automatically found our office wireless network. Range was adequate for communicating with a single access point at 11Mbps throughout a two-story house, and from the back yard as well. The e740 has a pair of expansion slots: an SD/MMC slot, which fully supports SDIO devices such as Toshiba's Bluetooth card, as well as a CompactFlash Type II slot. We had no troubles using the device with a 1GB IBM Microdrive and a 64MB SD card installed, with WiFi active—that's a lot of expansion in a compact form factor. (Note that Toshiba says the e740 isn't compatible

The e740 with the extended battery installed, and the standard battery to the right.

The expansion pack adds USB and VGA ports.

with the older 340MB Microdrive, which draws too much power.)

Size Matters

Despite the built-in WiFi and the dual expansion slots, the e740 remains fairly small—4.9x3.1x0.6 inches, and 6.6 ounces. It's slightly smaller and thinner, but about a quarter inch taller, than HP's Jornada 568. Its design is more functional than stylish, with a rather plain, aluminum casing that closely resembles the e310. The front-lit, 65,000 color screen is sharp and viewable in all lighting conditions, but doesn't offer the impressive brightness and contrast of the display found in its iPaq 3900-series competitor. Toshiba includes a leather slipper case to protect the e740's screen. We'd have preferred a more compact, integrated plastic cover like that found on the Jornada or the newer iPaq expansion sleeves.

The built-in speaker isn't very impressive. Alarms are quite audible, but music playback is quieter and more muffled than on recent iPaq models. Volume through a set of headphones was more than adequate, however. Audio is loud enough to hear clearly on a noisy jet, but it won't "go to 11"—you can't crank it to ear-shattering levels as you can on some other music playback devices.

The e740 has a removable battery pack, a feature that we think all PDAs should include. This will be particularly appreciated by heavy users of wireless networks. We got about 7 hours of usage with the WiFi radio disabled, but just over 2 hours while actively browsing the net using WiFi. Toshiba sells an optional high-capacity battery ($129) which adds just under 3/8 of an inch thickness to the device while offering up to triple the usual battery life.

Issues

Other than slow video playback, our only problem with the e740 was a scratchy background noise present when using the voice recorder feature. However, a few users have reported problems with the hardware buttons not responding; pressing the "record" button or soft-resetting re-activates them. Also, some e740 owners have reported that ActiveSync occasionally spontaneously disconnects. Finally, not a problem per se, but worth noting, is the system appearing to reserve a chunk of the 64MB RAM for its own use—the e740 shows only 58.27MB available.

Overall, we're very impressed with the e740. While the 400MHz processor doesn't deliver the revolutionary performance boost some expect, the e740 handled all the Pocket PC applications and games we tried on it with aplomb. With its relatively small form factor, built-in WiFi, and impressive expansion capabilities, it's a bargain at $599.

–Denny Atkin

The e740 cradle also accommodates the expansion pack and extended battery.

Toshiba
www.toshiba.com
$599

Pocket PC 2002 OS, 64MB, 400MHz Xscale CPU, SD and CF slots, built-in WiFi

Pros
- Built-in WiFi
- Dual expansion slots
- VGA output option

Cons
- Xscale not as fast as expected
- Occasional button-related glitches

A-

reviews

Sharp Zaurus SL-5500

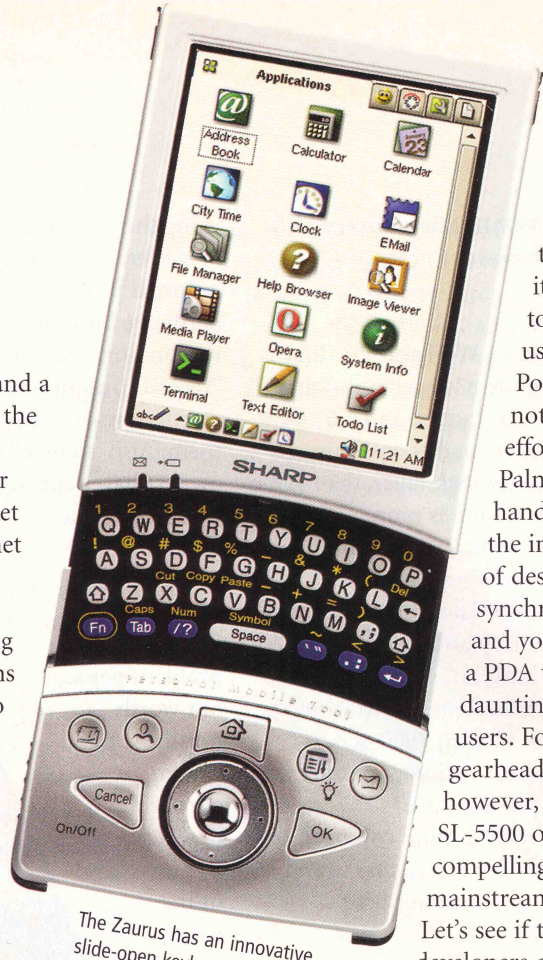
The Ross Perot of handheld PCs

With the Zaurus SL-5500, Sharp hopes to break into the two-party system that currently dominates the handheld PC market. Now, instead of having to choose between Palm and Pocket PC operating systems, you can opt for a device that runs a derivative of Linux—the OS that's long been nipping at Windows' heels. Should you cast your vote for the dark horse, or stick with a better-known candidate?

The Zaurus packs enough desirable hardware to turn the head of even the most jaded gadget freak. Its 206MHz processor, 64MB of internal memory and 240x320-pixel color screen rival current-generation Pocket PCs, as do its voice recorder, headphone jack, and CompactFlash and Secure Digital expansion slots. But what no other Pocket PC can match is the Zaurus's stowaway QWERTY keyboard, which is revealed by sliding open the bottom section of the device. The keys are responsive, well spaced and clearly labeled, but the lack of dedicated number keys is a bit disappointing.

As it should, the Zaurus also responds to stylus input, offering four different methods for data entry (two of which are virtually useless, but the onscreen keyboard and block-character recognizer work reasonably well). Right out of the box, the Zaurus boasts a more attractive interface (called Qtopia) than any other handheld PC. It's also admirably easy to navigate, as it employs tabbed dividers for the myriad applications that come preloaded.

In addition to a well-rounded word processor, spreadsheet manager and presentation viewer—all of which offer basic compatibility with Word, Excel and PowerPoint files—Sharp supplies an image viewer, an e-mail client, a music/video player and a handheld version of the popular Opera Web browser (which is far superior to the Pocket PC version of Internet Explorer). For game fans, Sharp includes seven titles, including nice implementations of Asteroids, Othello and Scrabble.



The Zaurus has an innovative slide-open keyboard.

Anyone familiar with the Linux OS may be expecting a treasure trove of free third-party software. While dozens of developers are faithfully coding for the device, most applications cost at least a few bucks, and existing software for Linux desktops isn't compatible. Visit myZaurus.com to see what kind of business, productivity and entertainment apps have been written thus far.

At press time, Sharp was soon to release a wireless modem for the Zaurus. In the meantime, you can connect to 802.11b ("Wi-Fi") networks with ease. We plugged in a D-Link 802.11b CompactFlash card, ran Qtopia's Internet Wizard, and hit the Web in about 60 seconds. The process was blissfully easy.

The Zaurus is slightly longer and thicker than Sony's NR70, making it one of the largest handhelds around. It's also one of the heaviest at 7.6 ounces. The more serious issue is desktop integration: a special version of IntelliSync allows the Zaurus to sync with Outlook, but setup and operation are confusing. It's also a hassle to load files onto the Zaurus, as you must drag and drop them to a specific folder.

Though the Zaurus itself is easier to learn and use than most Pocket PCs, it's not quite as effortless as a Palm-based handheld. Add the intricacies of desktop synchronization, and you've got a PDA that's too daunting for novice users. For the gearhead crowd, however, the Zaurus SL-5500 offers a mighty compelling alternative to mainstream handhelds. Let's see if third-party developers can help turn this platform into a viable third party.

–Rick Broida

Sharp Zaurus SL-5500
www.sharp-usa.com
$449.99

Qtopia Linux OS, 64MB, 240x320 color, CompactFlash/Secure Digital slots

Pros

- Nearly every hardware feature you could want
- Lots of bundled software
- Cool built-in keyboard
- Can plug directly into AC adapter for charging

Cons

- Confusing desktop integration
- Big and heavy
- External speaker limited to system sounds
- Takes a few seconds to turn off
- Memo pad doesn't sync with Outlook

B

Nomad Jukebox 3

Wherever you wander, the beat goes on

This is one sweet MP3 machine, but whatever happened to the Jukebox 2?

We know your type. Boxes of record albums collecting dust in the basement. CD storage towers overflowing with jewel cases. Hard drive packed to the gills with downloaded music. Can't get on an airplane without your Discman and a case full of CDs. It's for people like you that the Nomad Jukebox 3 was conceived.

It would be easy to dismiss the Jukebox as just the latest hard drive-based MP3 player on the block, albeit one with mighty impressive specs. Like Sonicblue's venerable RioRiot, the Jukebox packs a whopping 20GB of storage space (translation: about 5,000 songs), with a 40GB model imminent. Like Apple's equally well-respected iPod, the Jukebox sports a speedy FireWire interface. Unlike either of those two models, it can also record music from external devices (like, say, your cassette deck). And there's plenty more icing on the cake: a USB interface for PCs that lack FireWire, room for a second 11-hour battery, WMA support, a pair of line-out jacks, and iPod-like synchronization with your desktop. We particularly like the Jukebox's SmartSound setting, which equalizes the volume levels across all your music files.

Indeed, from a hardware standpoint, the Jukebox offers nearly every feature you could want—except for a more diminutive size. The device could easily pass for a portable CD player, though at 12 ounces (with one battery) it weighs more than most. It's far too large for most athletic activities—a fact made all the more regrettable by its 7-minute anti-skip buffer. We shook the unit hard for about a minute and it didn't miss a beat. Still, without a carrying case, it's hard even to go for a walk with the Jukebox.

The FireWire interface rocks—it took us about three minutes to transfer 225 songs from our PC. We didn't test the Jukebox with the included USB cable, as the transfer would have taken a lot longer. Kudos to Creative for the dual interface—demerits for not supporting the faster USB 2.0 standard.

Creative's PlayCenter application handles song transfers; it's a competent utility that can rip tracks directly from audio CDs, but it's not particularly novice-friendly. Most users will need to spend some time with the online manual and interactive tutorial—the latter an excellent addition.

The Jukebox's controls aren't difficult to master; a jog dial and roomy, backlit LCD make for reasonably easy navigation of the interface and song lists. However, the interface itself is far more confusing than it should be, and it lacks the terrific listening-habit amenities found in the RioRiot. Because the Jukebox has no hold switch, you must use the onscreen menus if you want to lock or unlock the buttons—way more trouble than it should be.

Creative's plastic neckphones seem cheap compared with the Jukebox itself. They sound okay, but true audiophiles will want to have their favorite 'phones on hand. Creative offers some enticing accessories, including the aforementioned second battery, an IR remote, and a wired remote that adds an FM tuner to the feature mix.

Though it has more features than either the iPod or RioRiot, the Nomad Jukebox 3 seems a little less polished than either one. With the RioRiot's classy interface and iPod's compact design, this would be the ultimate mobile music machine.

–Rick Broida

Creative Technology
www.nomadworld.com
$399
20GB, FireWire, USB 1.1

Pros
- Just try to fill it up
- FireWire and USB interfaces
- Can connect to stereo for playback and recording
- Optional second battery

Cons
- Bulky and heavy
- Confusing interface
- No carrying case
- Why didn't they just throw in the second battery?

B+

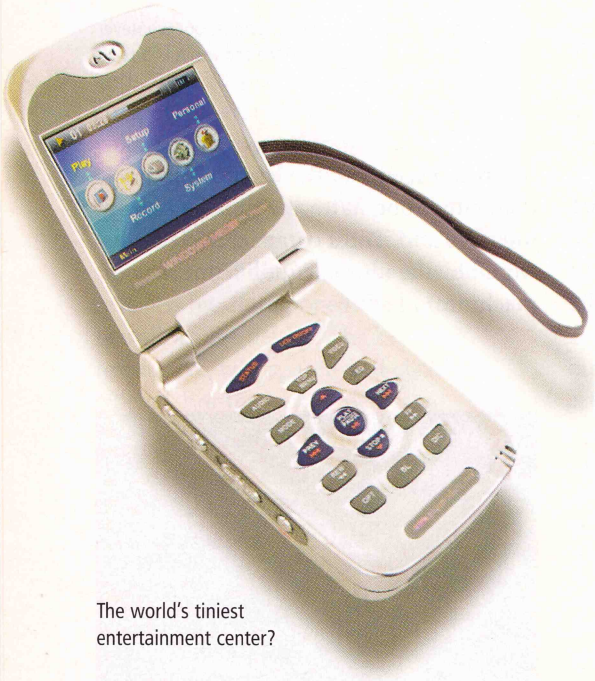
reviews

Flipster!

An entertainment center in your pocket

We've seen MP3 players that doubled as FM radios, voice recorders, even address books—but never one that doubled as a video player. That's why we're buzzed about the PogoProducts Flipster!, a first-generation portable multimedia center that gets just about everything right. After playing with this thing for just a few minutes, we wanted one—and you will, too.

First, the Ginsu list: the Flipster! plays MPEG-4 video files, MP3 and WMA music files, and Tetris. It displays digital photos, records voice notes, and stores addresses from your Outlook database. It has a backlit 2.5-inch color screen, an SD/MMC expansion slot, a speaker, a headphone jack, and a rechargeable battery. It doesn't slice or dice, but you could probably mash a potato with it.



The world's tiniest entertainment center?

In short, the Flipster! should keep you well entertained. As a music box, it performs as well as any other MP3 player, with the usual playback features, scrolling song titles, visualizations, and so on. The relatively spacious screen lets you see a list of songs rather than one at a time, which makes it easier to search playlists. The support for WMA files, which consume roughly half the space of their MP3 equivalents, is a nice perk.

The gizmo's claim to fame is, of course, video playback. You can download movie trailers, film shorts, and other clips from the Web, then convert them for viewing on the Flipster!. Better still, if you own a TV tuner card and VCR software for your PC, you can record live shows for later playback. We also had some luck downloading Simpsons episodes and other shows from KaZaA, a Napster-like file-sharing service, but not every one of them converted properly. Anyone conversant with DVD ripping software could theoretically make their favorite movies mobile.

An included Windows utility converts most standard video files (AVI, MPEG, etc.) to MPEG-4, a highly compressed format that's perfectly suited to small, low-resolution screens like the Flipster!'s. The shows and clips we watched didn't exactly look spectacular (a bit grainy, a bit jerky), but they were bright, colorful, and definitely watchable.

Though the Flipster! utilizes a specialized version of Windows CE, you'd never know it to look at the interface. It's extremely simplistic, divided into five main sections and accessed with arrow and quick-launch buttons. There are 17 buttons in all, but they're all clearly labeled and fairly logical, so even novices should have no trouble navigating. The presence of CE could lead to third-party games and applications in the future.

With its screen-protecting clamshell design, the Flipster! closely resembles a cell phone and has the same pocket-friendly proportions. It weighs less than four ounces with its lithium battery installed, which PogoProducts claims will provide 8 hours of music or 3.5 hours of video—pretty good considering the overall size of the Flipster!.

If you're going to spend $399 for the 64MB model, you might as well fork over an extra $50 for the 128MB version. Either way, you can expand the memory with SD or MMC cards. A 22-minute Simpsons episode nabbed about 24MB, so you'll obviously want to invest in extra storage. Hopefully the next-generation Flipster! will have an iPod-like hard drive in place of flash memory.

At the same time, let's wish for USB 2.0 support, as the current USB interface makes for rather slow file transfers. But who cares? The Flipster! may be pricey and memory-starved, but it's one of the coolest things we've ever seen and a harbinger of portable video products to come.

–Rick Broida

Pogo Products Flipster!
www.pogoproducts.com
$399 (64MB); $449 (128MB)
Windows CE 3.0 OS, 64/128MB, 160x234 color, Secure Digital slot

Pros
- Simple, streamlined interface
- Clever, compact clamshell design
- Does more than just video—much more
- Will make friends envious

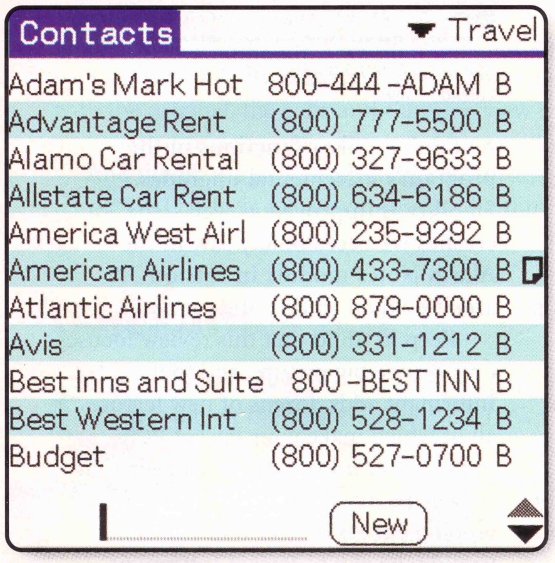
Cons
- Slow file transfers
- Expensive
- Screen too small for e-books

A-

KeyContacts

A more complete way to sync with Outlook

It's no surprise that a company like Chapura is offering KeyContacts for Palm OS users. What's surprising is that it took so long to happen. After all, Palm Powered PDAs have been synchronizing with Outlook since the late Jurassic, yet the built-in Address Book has never supported multiple contact folders, more than 15 categories, or other key features. KeyContacts finally does that, and more.



Alternating colors make the KeyContacts list very easy to read

Perhaps more than any other feature, people will upgrade to KeyContacts for the ability to synchronize their PDA with the full range of Outlook categories, almost without limitation. The program handles as many as 250 categories, and you can assign multiple categories to each contact, just as in Outlook. KeyContacts also enables you to sync your Palm to multiple Outlook folders, including public folders. If you tend to be long-winded when attaching notes to Outlook contacts, you'll appreciate the fact that KeyContacts supports huge 32K notes—that's eight times longer than standard notes. And when it's time to look up a contact, the Smart Lookup feature scans first, last, and company name—a dramatic improvement over the Address Book's anemic find feature that only searches by last name.

KeyContacts has much richer support for Outlook's many contact data fields. While the standard Palm Address Book doesn't track dozens of Outlook's more arcane details like job title, second and third address, or anything from Outlook's Details tab, KeyContacts synchronizes just about everything—40 additional fields in all. It oddly skips just a few miscellaneous fields, like the profession and Instant Message address. If Chapura packed in stuff like a telex number, birthday, and assistant's name, why skimp on those last few?

We're most disappointed by the way KeyContacts displays all these extra details. In the normal view, KeyContacts doesn't display anything extra at all. The standard Contact View looks just like the Address Book; to see the extra fields, you have to tap on a contact to enter the program's edit mode. In many cases, even that's not enough. You have to use drop-down menus to switch among related fields, like the three postal addresses and the three emails. That's a lot of tapping to track down contact information, and it runs counter to the Palm philosophy of keeping everything just two taps away.

With ledger-like alternating colors on each line and a customizable display, KeyContacts is a marked improvement over your old Address Book.

Guy, our newest editor, is filed on the PDA exactly the same as within Outlook—in three different categories simultaneously

Nonetheless, Chapura has certainly left itself a lot of room for improvement in version 2.0. Users should have the option of displaying more information in the Contact View, for instance, and some support for closing the Sony Clie's virtual Graffiti area would be a nice addition. Then there's the problem that KeyContacts doesn't interact with other Palm OS applications; DateBk 5 won't refer to it, for instance, and you can't dial a KeyContacts phone number with a Palm Powered smartphone. All that adds up to an improved Address Book that may not, in the end, do you a lot of good on a daily basis. Chapura is on the right track, though, and the next version is almost certain to be a Top Pick.

–Dave Johnson

Chapura
www.chapura.com
$24.95

Pros
- 40 extra contacts
- Outstanding category support
- Much larger notes

Cons
- Doesn't integrate with other third-party apps
- Hides all the additional data in the edit form
- No cross-app integration

B-

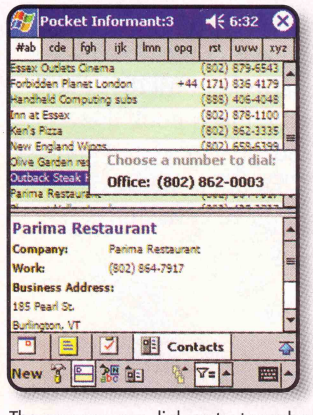
reviews

Pocket Informant 3.1

We wish Outlook worked this well as a PIM

When you consider that the most common use for handheld computers is personal information management—keeping track of contacts, appointments, and tasks—it's a wonder that the built-in PIM functions on both Pocket PCs and Palms are so lackluster. WebIS has solved that problem for Pocket PC users with Pocket Informant 3.1, which replaces the built-in Contacts, Calendar, and Task applications with a single, more powerful, integrated application.

The improvements we found most useful in day-to-day operation were in the Calendar. You can view upcoming appointments using agenda, daily, weekly, or monthly views. Each of these can be customized as well; the weekly view, for instance, can show 3, 5, or 7 days. The monthly view displays individual graphs of how full each day is, great for making at-a-glance decisions on when to schedule tasks. You can even assign icons to tasks; a companion icon editor is available for your PC. There are numerous small but useful features, such as the ability to quickly pull up lists of upcoming birthdays, anniversaries, holidays, or recurring events. Perhaps the program's most useful feature is the capability of linking a contact, task, note, or alarm note to any appointment.



The program can dial contact numbers by generating touch tones with the Pocket PC speaker.

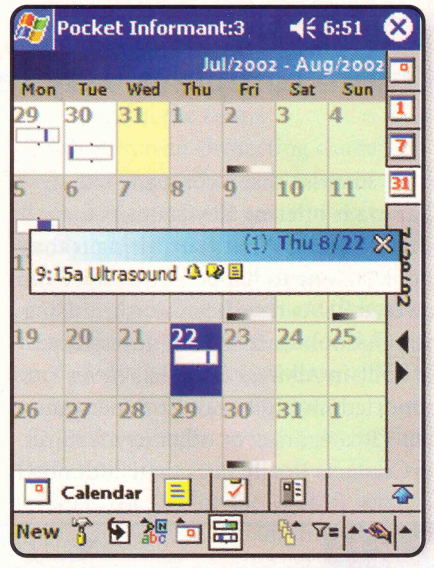
The Contacts module provides a clean view of your data, with ledger-like color separators for each entry. A split-screen view lets you see details of each entry as you scroll through the list. Tap a phone number and your Pocket PC generates the touch-tones to dial it—just hold the speaker up to your phone. This is a gimmicky but surprisingly useful feature.

The Tasks module is much better than the one built into the Pocket PC operating system, and we found it far more useful for prioritizing than Outlook's Task feature. There are a huge number of priority settings—A-Z, as well as 1-99. You can sort tasks using multiple fields, such as by date and then priority. Or you can use a drag-and-drop interface to move tasks around the priority list with your stylus.

One of our favorite features is Alarm Notes, which lets you sketch a "sticky note" style reminder, which can be set to pop up at a certain time. This is great for when you remember something and you don't have time to worry about stylus text recognition.

The interface has seen a major revamp since version 2. That version's garish colors and button design gave it an almost Windows 3.1-like appearance. The latest release sports a design that's as professional and intuitive as any we've seen on the Pocket PC. Many of interface elements are customizable, so you can optimize the display to reduce clutter or make the maximum number of functions available at a single tap.

Perhaps the biggest improvement, though, is speed. Overall the program's response is almost instantaneous, and WebIS has been optimizing the few remaining pokey functions in the program's incremental upgrades. Stability is improved as well—the crashes we occasionally saw in the Alarm Notes module in version 3.0 aren't evident in the latest release.



You'll find about a dozen ways to set up your calendar view.

Keep in mind that this review focuses only on the big picture, and that Pocket Informant adds dozens of new features, all of which make your Pocket PC a much better information manager. Our only gripe is a small one: we wish that tapping entries on the Today screen would take you to Pocket Informant instead of the built-in apps.

–Denny Atkin

WebIS, Inc.
www.pocketinformant.com
$19.95
Pocket PC

Pros
- Superb integration between modules
- Highly customizable
- Intuitive interface

Cons
- A few functions are still slow

A

Tomb Raider for Pocket PC

Tomb Raider for Pocket PC: infinitely more exciting than Tomb Raider, the movie.

First she made the leap from computer screen to silver screen. Now, Lara Croft is headlining a decidedly smaller venue: your Pocket PC. Eidos Interactive's Tomb Raider, the most faithful recreation of a computer classic since SimCity, brings the action/adventure heroine to your handheld. It looks, sounds and plays exactly like the 1996 original, and even includes the same 16 massive levels. This is a mighty big game for such a small device.

And a mighty big letdown if you don't own an iPAQ—the only platform the game currently supports. At press time, Eidos had no definite plans to release it for other models. Owners of other Pocket PCs can improve the odds by contacting the company to express your interest.

Is Tomb Raider worth campaigning for? We're on the fence. If you're not familiar with the game, it's like a third-person Doom, with an emphasis on exploration and puzzle-solving over mindless blasting (though it's not without gunplay). As with the original, the constantly shifting view makes movement and combat tricky—especially on such a small screen.

And there's the rub. Tomb Raider is fun and challenging, but on the iPAQ it feels claustrophobic. It's hard to see where you're going and make out what's in the distance. As for the controls, they're a clever combination of the d-pad and translucent onscreen buttons—but they take practice to master.

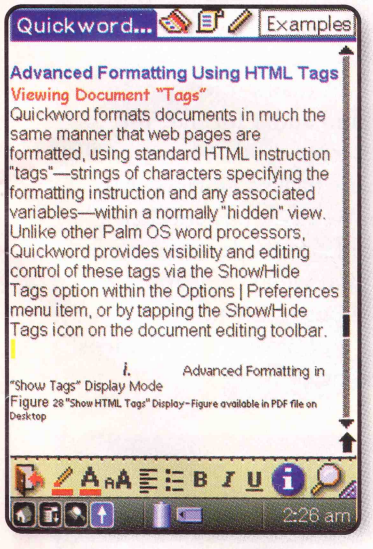
At $29.95, the game costs more than Tomb Raider 4 for the PC. But though it's pricey and difficult on the eyes and maybe just too big for the Pocket PC's britches—well, dang it, we still love this game.

–Rick Broida

Eidos Interactive
www.tombraidertogo.com
$29.95
B

Quickoffice 6.0

We already liked Quickoffice, giving it our office suite of the year award for 2001. Not content to rest on its laurels, Cutting Edge Software has released Quickoffice 6.0, an update that adds support for high-end Palm Powered handhelds, refines the Windows desktop interface, and adds expansion card support.



Fontbucket fonts looks good on a hi-res display.

The most significant updates are to Quickword, which now offers 11 levels of zoom—a boon when reading ebooks or using a keyboard that places the handheld farther from your view. The application uses Hands High's FontBucket standard to allow conversion of TrueType fonts. With Quickword's improved hi-res support (including full screen on the Clié NR series), text looks very sharp. Overall, Quickword is a much more capable word processor than its earlier incarnations. Note that on 33MHz and slower handhelds equipped with keyboards, very fast typists may be able to get ahead of the program.

The already full-featured Quicksheet spreadsheet has seen more minor updates, mostly dealing with cell formatting. But Clié NR series users can now view full-screen spreadsheets, although the landscape mode available to Handera 330 users is AWOL here.

The Quickoffice desktop program has seen a revamp, making it even easier to transfer Word and Excel files between your desktop and handheld. There's still no Macintosh conduit, however. Files can now be stored directly on expansion cards; they're copied to main memory for editing, then returned to the card when you're finished.

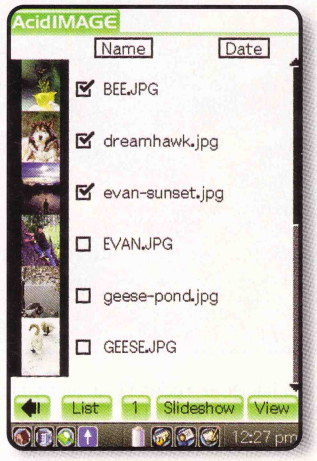
Overall, this is an extremely impressive suite for a mere $39.95. Recommended for those who need to edit files on the go.

–Denny Atkin

Cutting Edge Software
www.cesinc.com
$39.95
A-

reviews

AcidImage 2.0



You can browse your images by name or thumbnail.

Ever since PDAs first went color, people have been using them like electronic wallets to show off digital images. Unfortunately, most photo viewers for the Palm OS insist on converting images to a unique, Palm-only file format. Red Mercury's AcidImage is a viewer for folks who don't want to fiddle with their pictures—it directly displays images in formats like JPG, GIF, and BMP just fine.

Indeed, AcidImage seems custom-made for folks who have a digital camera that uses the same kind of memory card as their PDA. Just take a Memory Stick from a digital camera and pop it into a Sony Clié, for instance, to immediately browse your photos. AcidImage can show images at full size (a slow process that requires a lot of panning around), fit pictures to the PDA's screen, or zoom anywhere in between.

AcidImage lets you browse through subdirectories to locate your images, and you can specify what file formats you want the program to be able to recognize. If you work with JPG images, you'll appreciate being able to browse images by thumbnail, though AcidImage requires the image to include the thumbnail data to begin with. Not all flavors of JPG work this way, but we found that photos saved with PhotoShop Elements displayed thumbnails just fine. According to Red Mercury, a future version of AcidImage will generate its own thumbnails on the fly.

An excellent viewer, AcidImage lets you tap-and-view images or create automatic slideshows. The program's biggest limitation? It doesn't support categories. Instead, AcidImage uses its own concoction, called groups, which turns out to be a clumsy substitute for organizing your pictures.

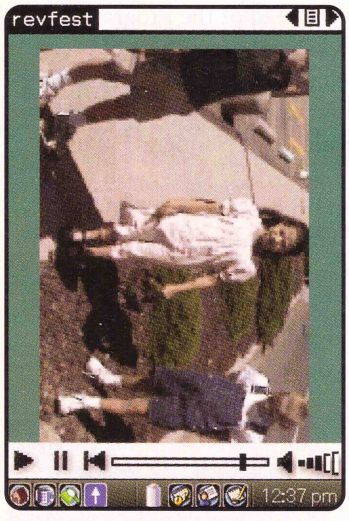
Sony Clie NR series owners should make AcidImage a part of their software collection since it supports 480x320-pixel, full-screen operation. Aside from the egregious lack of category support, AcidImage is the acid test by which all other image viewers should be judged.

–Dave Johnson

Red Mercury
www.red-mercury.com
$19.95
A-

Kinoma Player and Producer

Why on earth would anyone watch a movie on a PDA? If you're a doubter, try Kinoma, and you'll never dismiss PDA video out of hand again.



Play TV shows or home movies on your Palm Powered PDA, and get a widescreen view of the action with the right hardware.

Kinoma Player is a free download for any Palm OS device; Kinoma Producer is an inexpensive video converter for both the Mac and Windows.

At first, Kinoma Player seems like an unimpressive clone of Sony's gMovie player for the Clie. But once you see Kinoma collapse the virtual Graffiti area on a Clie NR and play a 480x320-pixel movie, you know that you've just seen the future of handheld multimedia.

Indeed, Kinoma's movies are as large as many streaming videos that you watch on the desktop, and here it is—free of stutters and jitters—in the palm of your hand.

Making a movie with Kinoma Producer is a drag and drop affair. It accepts video in a wide variety of formats, including QuickTime, MPEG, and AVI, and it lets you tweak the movie's specs, like frame rate and audio format. You can also rotate the file to play in widescreen mode on compatible devices, and set other details like the background color or still image that frames the movie. We had excellent luck burning music videos downloaded from the Internet, home movie clips transferred from a digital video camcorder, and even a complete episode of the Simpsons. We noted a loss of audio synchronization near the end of really long videos, but overall the effect was outstanding.

The next time you travel by plane, bring Kinoma and an episode of Seinfeld on Memory Stick. It's gotta be better than the in-flight movie.

–Dave Johnson

Kinoma, Inc.
www.kinoma.com
$29.99
A

Seidio Data Power Package

Seidio's Data Power Package has to be the most complete charging and synchronization solution ever devised. Unzip the included black travel case and you'll find a neatly packed assortment of cables that connect together to allow you to charge your PDA using a 9-volt battery, AC wall socket, auto cigarette lighter connector, or airliner seat power socket. There's USB synchronization cable included as well.

At the heart of the mechanism is small adapter that clips onto the 9-volt charger. These adapters are available for a wide variety of Palm Powered and Pocket PC PDAs, including models from Casio, Compaq, Handspring, HP, Palm, and Sony. To charge your handheld on the road, just attach a battery, or connect one of the other power adapters to the 9-volt terminals. You can use the PDA while it's charging.

We realize that nearly $70 is a lot of money to pay for an emergency charger and synchronization kit. However, the base 9-volt battery charge component, with one PDA adapter, is available for just $19.95, and you can add other adapters such as auto or air chargers to fit your needs. The Data Power Package really pays off if you own multiple PDA models, as you can purchase charge adapters for those for $10.95 apiece. If you're taking several PDAs or smartphones on the road, you can carry just one set of cables, with extra adapters, and synch and charge them all.

–Cary Naismith

The complete power package, along with adapters for the iPAQ 3850 and Palm m505.

Seidio
www.seidio.com
$69.95
A-

NEO CarJukebox
THE IN-CAR AUDIO JUKEBOX

800 CDs IN A CAR
9000 Song Capacity
Home Bay Included
Connects to your home stereo!

800 CD's in your car
Works like a CD changer
Stores all your CDs and mp3s.
Fits in all cars!

MADE BY: SSI
WWW.SSIAMERICA.COM Tel: 1-877-901-9709

Phone Dialer For Your PDA
Dial directly from your Address Book with a single stroke. Ring...Ring!

Simple.
Convenient.
The Essential PDA Accessory.
www.pda2phone.com
866.2.parlay (866.272.7529)
Synchroscan Corporation
Parlay Dialer

POWERPLAY™ V5
Embedded with the Linux DA O/S
MP3 Player, Voice Recording
SD / MMC Expansion Card Slot
Rechargeable Lithium Polymer Battery
2 MB Flash ROM, 8 MB RAM
Motorola Dragonball EZ CPU
169.99
MP3 DIGITAL VOICE RECORD SD SECURE DISK
TO ORDER: 1-888-Linux-DA
ONLINE: www.linuxda.com/store
ENQUIRY: handheld@linuxda.com
*unit may not be exactly as shown
All trademarks and registered trademarks are owned by thier respective companies.

reviews

NexiPak

NexiPak adds two slots, a battery, and plenty of thickness.

The NexiPak expansion sleeve for the iPaq boasts a pair of CompactFlash Type II slots, as well as a removable 1550mAH battery. Just be willing to deal with a very thick PDA—it also adds almost 3/4 of an inch to the iPaq's thickness.

We were able to run a MicroDrive and a modem together with no problems. The only conflict we encountered was trying to use two oversized cards; with the Targus modem in one slot, we could only use a normal-size card in the other.

Compensating for the iPaq's lack of a removable battery, you can purchase additional batteries for the NexiPak for $39.95. AC and auto chargers are available as well. An excellent option if size doesn't matter.

–Cary Naismith

Nexian
www.nexian.com
$149
B+

Scott eVest v2.0s-Sport

The Personal Area Network lets you connect the devices in your pockets.

We loved the utility of the original Scott eVest, but we have to admit we felt somewhat geeky wearing it. The new eVest v2.0s-Sport has seen major improvements in both function and style. Best of all, these wired threads now double as a jacket, thanks to sleeves that attach via hidden zippers.

The eVest boasts an amazing 17 pockets, ready to hold everything from PDAs to subnotebooks. What makes it unique are the PAN channels, which let you thread cables between pockets. Connect your PDA and cell phone, or run the wires from your MP3 player to your collar. The fit and look is great, but be aware that the fit's a bit tight, so you might need to order one size up from your usual.

—Denny Atkin

SCOTTeVEST LLC
www.scottevest.com
$109.99
A-

Today 1.6

A Pocket PC emulator for your Palm? No, just borrowing the "Today" screen.

Among the amenities in the Pocket PC operating system that Palm Powered handhelds lack is a "today" screen that displays at-a-glance the date and time, owner information, your next scheduled appointment, e-mail notification, and the number of tasks in your to-do list. Jonas Lindstedt's aptly named Today fills that void, effectively recreating the eponymous Pocket PC screen on your Palm device.

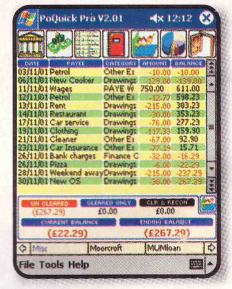
By default, Today appears whenever you turn on your handheld, though it can also be set to run after a specified amount of elapsed time. Tapping any of the summarized items takes you to the appropriate application, except for tasks, which are displayed in a pop-up window. Today also provides battery and memory meters (two of each, inexplicably) and supports jog dials, skins and high-res screens. This is a great little tool at an unbeatable price.

–Rick Broida

Jonas Lindstedt
www.palmgear.com
Free
B+

PoQuick Money Professional

PoQuick Money Professional may be the greatest finance-management program in history that doesn't synchronize with Money or Quicken. In fact, it doesn't synchronize with any desktop software—it's just a standalone money manager, and a darn good one. The interface is both attractive and uncluttered, with icons providing single-tap access to the program's seven primary functions. You can track multiple accounts, define categories for your income and expenses, and record transactions in a simplistic register. The software can generate an amazing variety of reports, graphs and charts, covering everything from P&L to net worth. Just one key feature missing: splits.



Can't keep track of your money? With PoQuick, your Pocket PC can.

It's fortunate PoQuick is so uncomplicated, as the only documentation is a built-in help file. If you can live without desktop integration, this could be the only money manager you'll ever need.

–Kirk Linksy

Mastersoft Mobile Solutions
www.mastersoftmobilesolutions.com
$14.95
B

Cross Matrix Fountain Pen

No, we're not kidding. This is an $80 stylus. But is that too much to pay for one of the best styluses ever? With red and blue ink cartridges, a hidden fountain pen, and a comfortable stylus, this is a stylish, versatile writing instrument.

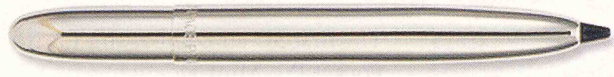
On one end of this rotund pen is a dual ball-point tip, with retractable red and blue ink cartridges. These offer smooth writing, with nary an ink blotch in sight. On the other end is a stylus tip. We found this much more comfortable for long writing sessions than skinny built-in PDA styluses. Pull out the stylus end and turn it around to reveal a regal black ink fountain pen, perfect for impressing clients when you're signing important documents.

–Cary Naismith

Flip the fountain-pen end around to reveal a stylus tip.

Cross
www.cross.com
$80
A

Bullet Space Pen with Stylus



Fisher's Bullet Space Pen now offers an optional stylus tip.

If you're not impressed by the fact that it was designed for use by astronauts, how about the fact that an entire episode of Seinfeld was based around it? The Fisher Space Pen has always been one of our favorite writing instruments. It has a smooth-rolling ballpoint, lays down a very uniform line of ink, and if you suddenly find yourself hanging upside down or floating weightless after an alien abduction, you can be sure it'll still let you write a note for help.

Now Fisher offers a new version of the classic Bullet Space Pen with a stylus tip on one end. It's very comfortable for PDA work; our only gripe was the pocket clip on the stylus end, but that's easily removed.

–Cary Naismith

Fisher Space Pen Co.
www.spacepen.com
$22.00
A

Pay less...

Get more!

- Free membership, no strings!
- Get discounts off software and accessories for your Palm from top companies, including:

Astraware Electric Pocket Qvadis
Neohand Pocket Express Scribble

...and many more

pda Offers www.pdaoffers.com

PhatWare Corporation
http://www.phatware.com
188 Pickering Avenue, Fremont, CA 94536
Tel. 510-796-8949 Fax: 510-796-8949

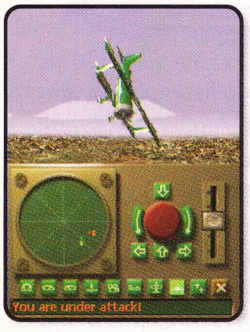
HPC Notes
for Palm and Pocket PC

* Pocket PC Magazine Best Product Award
* Pocket PC Magazine Hot Download Pick
* FoxPop Application of the Year
* WinCELair Pocket Perfection Award

Pocket PC Magazine Best Product Award 2001

reviews

Mini-Dogfight



Air combat, Pocket PC style.

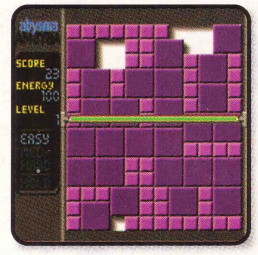
The first 3D air combat sim for the Pocket PC, Mini-Dogfight won't have you deleting Falcon 4.0 from your PC's hard drive, but for a handheld game it's impressive. Choose one of five planes of WW I and II vintage and take on up to three opponents in a 3D world. Physics are akin to early 90's PC sims—not ultra realistic, but you can stall and you can definitely crash. Enemy AI is very challenging. You can use the d-pad or stylus to maneuver, and control is easier than you'd expect, though getting a kill is quite challenging.

There are a few problems. Most planes are misidentified—the "Mosquito" is a Corsair—and the coders obviously aren't from an English-speaking country. Still, "You are crashed! You lost!" doesn't mar an otherwise entertaining game.

–Denny Atkin

OmniG Software
www.omnigsoft.com
$19.95
B

Abysma



Abysma is a drag-and-drop race against the ever-descending energy bar.

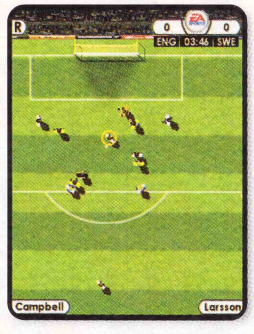
It's hard to play flight sims and shooters on a PDA, but puzzle games are absolutely perfect for the tiny screen. Abysma is yet another winner from the puzzle masters at AstraWare. In this fast-paced reverse-Tetris clone, you need to rearrange blocks to keep a descending "energy bar" from crossing empty spaces on the screen. It's quite demanding—sometimes you can steal blocks from above the power bar to fill in holes, but more often you'll need to borrow blocks from the bottom and replace them later when the bar marches closer to the bottom of the screen.

Abysma looks great in color, but plays well on monochrome PDAs as well since shapes—not colors—are key. Make sure your screen is accurately digitized, though, since selecting the smallest blocks can challenge your patience. Like most of AstraWare's best games, Abysma is simple in concept but maddeningly addictive.

–Dave Johnson

AstraWare
www.astraware.com
$14.95
A

FIFA 2002



If you like soccer, you might like playing it on your Pocket PC.

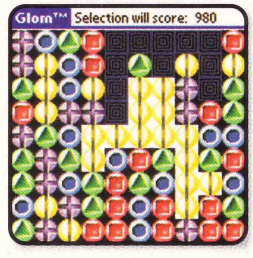
Soccer translates surprisingly well to the small screen. Witness FIFA 2002, the latest EA Sports license ported to the Pocket PC by ZioSoft. It's easy to play, easy on the eyes, and hard to put down. The game features a beautifully rendered field, smooth scrolling and decent sound effects (including a constantly roaring crowd). Unfortunately, you can't adjust the volume level—it's either on or off, and "on" is annoyingly loud. For the true soccer fan, FIFA serves up all 32 World Cup teams and lets you choose from a wide variety of gameplay options.

Controls can make or break a game like this, but FIFA makes it easy to select players, pass, steal and shoot. Regrettably, the game costs nearly as much as the desktop version.

–Rick Broida

ZioSoft
www.ziosoft.com
$29.95
B

Glom



Glom is yet another tap-the-tiles puzzle game, but a damn fine one.

If you can't get enough of Bejeweled-type puzzle games, do yourself a favor and check out Glom. The game will seem familiar to anyone adept at TapDown, as you tap like-colored groups of two or more tiles to remove them from the screen. The difference here is that no additional tiles appear during the course of a level—your goal is to have as few of them as possible remaining when you run out of combinations. Each succeeding level challenges you to leave fewer and fewer blocks behind. Thus, this game is less about reflexes and more about logic and planning.

Glom features a number of cool-looking tile sets to add some visual variety. And while it's playable on grayscale screens, it's much easier on the eyes in color.

–Rick Broida

Pipeworks Software
www.pipeworks.net
$11.95
A-

ENTER TO WIN
Great Handheld Prizes!

www.hhcbg.com

BANTAM® interactive
Audio with Vision

Bantam Interactive Explor BA350
Industry's smallest, lightest and slimmest 128MB digital audio player!
www.bantamusa.com

SCOTT™ VEST
scottevest.com
get wired!
TEC™
TECHNOLOGY ENABLED CLOTHING

DYMO®

The Ultimate Hands-Free Experience™
Carry, Conceal And Connect Every And Any Tech Gadget from PDAs to Cell Phones to MP3 Players!
www.scottevest.com

Don't agonize...Organize!
The most versatile PC label printer integrates with Palm OS4 and higher.
www.dymo.com

E3

Quickoffice™

CUTTING EDGE SOFTWARE

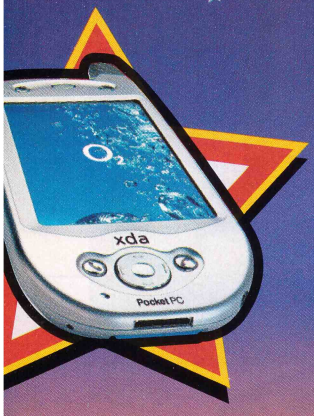
The Ultimate in Portability
Quality cases and accessories for your mobile devices.
www.ebcases.com

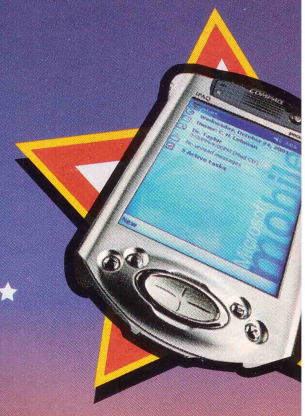
QuickOffice in your hand!
Places your Excel and Word files right where you need them *in your hand*!
www.cesinc.com

Hurry Contest Ends October 31, 2002!!!

HANDHELD computing

POCKET PC SUMMIT

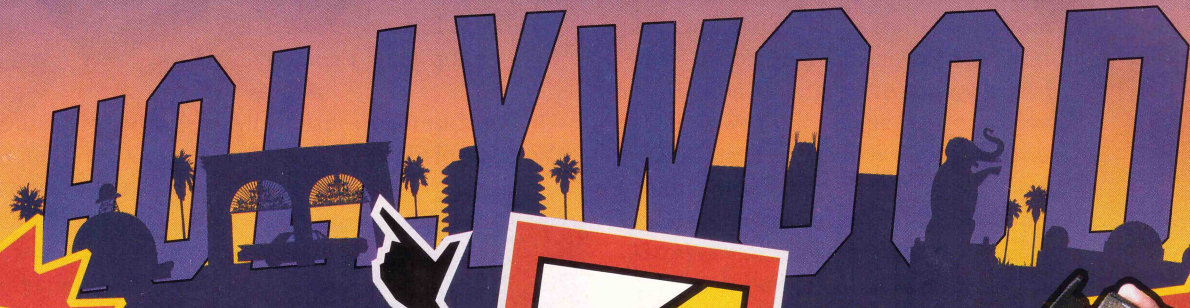




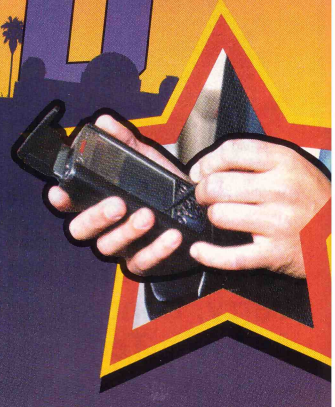
THE POSSIBILITIES ARE ENDLESS

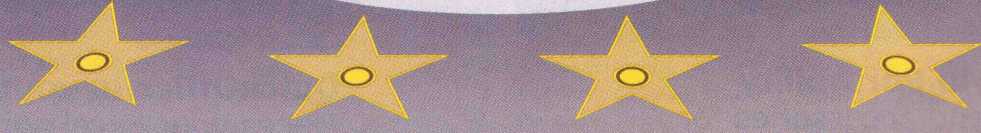
YOU'RE NO LONGER CHAINED TO YOUR DESKTOP

Any Time or Any Place, its All Possible with the
Pocket PC Handheld Computer and Wireless Services.
★ Discover the Endless Possibilities by Attending the
Pocket PC Summit, October 21 - 25, 2002 in Hollywood.



REGISTER
NOW AND SAVE
$400





REGISTER NOW AND YOU'LL SAVE BIG. Register at www.pocketpcsummit.com/register/ today!

The Pocket PC Summit is the premiere event for handheld computing and represents the future of the Pocket PC platform. Past conferences have included keynotes and presentations from the wireless industry's top CEOs, Visionaries, and Leaders and this edition will be no different as we continue to **mobilize** the industry!

Produced by: MultiMeteor Microsoft COMPAQ symbol CASIO HANDHELD computing Windows Powered PocketPCmag.com POCKETPC MAGAZINE hp invent

We look forward to seeing you there. Thanks, The Pocket PC Summit Team.

Visit www.pocketpcsummit.com - Or call 818-994-7199

Index to Advertisers

Astraware 7
CTIA Wireless 41
Cutting Edge Software 13
DataViz C3
Direct Cas 17
E&B Cases 11
Eidos Interactive C4
Electric Fuel 27
Handheld Computing Enterprise & Wireless 15
Handheld Computing Subscriptions 25
Handmark 5, 33
iambic Software 23
Ilium Software 23
Landware 17
Mark/Space 21
Mobile Planet 21
Mobile Systems 17
MP3 & Handhelds Contest Ad 67
mySmartPhone.com 53
ND-Dimensions 27
Palm Digital Media 1
pda-offers 65
PDAZOO.com 53
Phatware 65
Planet PDA 36, 37
Pocket PC Summit 68
Proporta 23
RoadWired 27
Seiko Instruments 3
Sony 18, 19
SSI America 63
Stevens Creek Software 21
StylusCentral/eFrameCentral.com 23
Textware Solutions 27
TravRoute C2

MarketPlace

Armor 69
Empower Technologies 63
Genovation 69
Laridian 70
NavTech 70
NiteIze 70
RhinoSkin 70
StylusCentral 69
Symbol 69
Synchroscan 63
tDevice 70
Ultrasoft 70

Symbol PPT 2800 Series Portable Pen Terminal

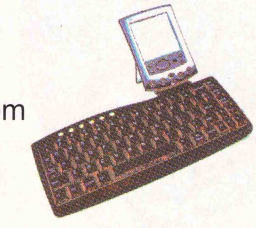
Combined strength of **Pocket PC** with **Bar Code Scanning** and real-time **wireless communication.**

symbol www.symbol.com info@symbol.com 1-800-722-6234

An Ideal Solution for Mobile Applications

Æ GENOVATION

800.822.4333
949.833.3355
www.genovation.com
sales@genovation.com



The Right Choice for PDA Accessories

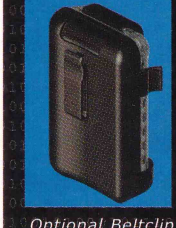
$49.95

- Ruggedize any PDA
- Watertight
- Crush Proof
- Dust Proof
- Case features transparent screen allowing full use of PDA in any environment

ARMOR by Otter™

Armor by OtterBox
316 South Link Lane
Fort Collins, CO 80524
T. 888-695-8820 F. 888-695-8827
www.otterbox.com

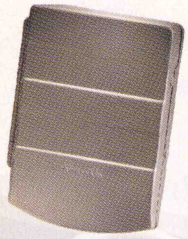
*Patents Pending Made in the USA



Optional Beltclip Sizes available for most PDA models! Handstrap

RUGGEDIZE YOUR PDA

StylusCentral.com



Palm™ m500 series Titanium Hardcase

Executive Leather Tri-Fold

Case Solutions for Mobile Technologies

RhinoSkin™ guards your handheld against drops, bumps and collisions!

- Palm™
- HP™
- iPAQ™
- Handspring™
- Titanium
- Aluminum
- Leather
- Cordura

LIMITED TIME OFFER!
10% OFF ALL CASES
Including the Factory Outlet!
Use coupon code **handheld** at checkout.

rhino•skin™
by SAUNDERS
866.734.8833
www.rhinoskin.com/hhcprt

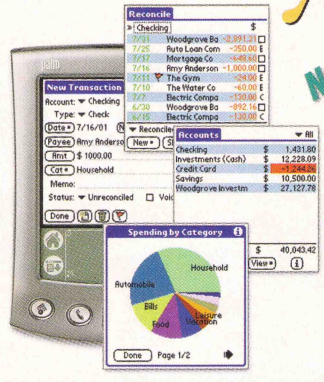
Put Money in your pocket

Sychronize your Palm OS® handheld computer directly with Microsoft® Money, and manage your finances while you're away from your computer with Ultrasoft Money.

Enter transactions in less time that it takes you to get your receipt. Change account and category information, schedule bills, analyze your spending, even balance your accounts on the go.

Money management made easy!

Ultrasoft™ Money $34.95



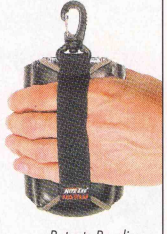
New! Ultrasoft CheckBook $19.95

Don't use desktop finance software? **Ultrasoft CheckBook** is made for you. It's a complete Personal Financial Manager for your Palm Powered handheld device.

Ultrasoft™
www.ultrasoft.com

NITE IZE STAND-UP™ HOLSTER
Converts to hands-free workstation!

NITE IZE PACK STRAP™
Ultimate iPAQ™ accessory!



Patents Pending

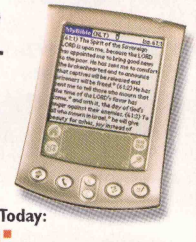
www.niteize.com
info@niteize.com

Patents Pending

The Bible at Your Fingertips

Add the complete Bible in your favorite translation to your handheld computer, with MyBible or PocketBible.

- Turn spare moments into devotional or study opportunities
- Compare translations; choose from NIV, NLT, NKJV, NASB and more!
- Find applicable Scriptures using powerful search features
- Be prepared with your bookmarked favorite passages
- **Save 20%** on your initial order by using the priority code below.



LARIDIAN ELECTRONIC PUBLISHING
319.378.4940

Purchase and Download Today:
www.laridian.com

Premier Bible Software for Palm and Pocket PC Handhelds

Use Priority Code HCM0802 when you order.

NAVIGATION TECHNOLOGIES

NAVTECH digital map data
NAVTECH Real Time Map Service
NAVTECH Professional Services

navtech.com
developers@navtech.com
866-422-8171toll-free
866-422-8175 fax

NAVTECH

Ultimate Mobile PDA Keyboard!

Leather Case
+ Keyboard
+ Viewing Stand

Q-Pad™ by tDevice http://www.tDevice.com

Accessories

Seidio, Inc. / PDA Accessories / www.seidio.com / 877-2-SEIDIO

Cables

SupplyNet / PDA Direct Connect Cellular Cables / www.thesupplynet.com / (800) 826-0279

Cases

DirectCase.com / PDA Cases / www.directcase.com/hhcdir / (307) 732-1400

E & B Company / Cases and Accessories / www.ebcases.com / 800-896-2373

Eric Scott, LTD / Custom PDA Cases / www.ericscott.com / (573) 883-7491

RhinoSkin / PDA Cases / www.rhinoskin.com/hhcdir / (866) 734.1400

Power

Electric Fuel / Instant Power / www.instant-fuel.com / (212) 529-9200

Screen

CompanionLink / CompanionLink Screen Kit/ www.companionlink.com / (503) 684-9400

Stylus

StylusCentral / Stylus Pens / www.styluscentral.com / (401) 738-8000

Training Resource

Palm OS Training Video / Palm OS Training Video (DVD/VHS/CD) / www.PalmOSTrainingVideo.com / (208) 658-0885

Hardware

MobilePlanet / PDA's & Mobile Computing Devices / www.mobileplanet.com / (800) M Planet

Memory

STNE Corporation / Palm Memory Upgrades www.stnecorp.com / (800) 757-0617

MP3 Players

Bantam Interactive / BA350 IBA 800, the industry's smallest, lightest next generation Web-enabled digital audio devices, offering the latest features and visual technology. / www.bantamusa.com

Software

Business & Professional

Ants Technologies, Inc. / DataKeeper Secure / www.AntsTech.com / info@AntsTech.com

AvantGo's Pylon Pro / Lotus Notes PIM & Apps on Palm & Pocket PC / www.avantgo.com/buypylon / (888) 884-8812

Beiks / BeSafe Data Guard / www.beiks.com

DataViz / Documents to Go Professional Edition www.dataviz.com / (800) 733-0030

DataViz / Desktop to Go PIM Synchronization / www.dataviz.com / (800) 733-0030

iambic / Business Productivity Applications / www.iambic.com

IS/Complete, Inc. / BT Print™ Pro printing via Bluetooth, IR or Cable from you Palm OS PDA / www.btprint.com / (732) 926-0419

Mobile Systems, Inc. / Mobile Money 2002 / www.mobi-systems.com / partners@mobi-systems.com

Ultrasoft Limited / Ultrasoft Money / www.ultrasoft.com / info@ultrasoft.com

Database

Land - J Technologies / J File Database / www.jfle.com / support@land-j.com

Development Tools

NSBasic / Tools for PalmOS & Pocket PC / www.nsbasic.com / (416) 264-5999

eBooks

PDABookstore.com / eBooks for Palm and Pocket PC / www.pdabookstore.com / mark@pdabookstore.com

Games & Entertainment

DeepNet Technologies / BlackJack Mentor Counter Expert / www.deepnettech.com / (519) 579-2813

Electron Hut / cool games for palm / www.electronhut.com

Handmark / Monopoly / www.handmark.com

Mapping

MobileGeographics / MapTap Professional / www.mobilegeographics.com / (206) 297-9575

mCommerce

Merchant Anywhere / Pocket Verifier Professional / www.merchantanywhere.com / (714) 449-0211

Navigation

MobileGeographics / CelestNav / www.mobilegeographics.com / (206) 297-9575

Synchronization

CompanionLink / CompanionLink/ www.companionlink.com/ (503) 684-9400

CompanionLink / DoubleLook/ www.companionlink.com/ (503) 684-9400

DataViz / Desktop to Go / www.dataviz.com / (800) 733-0030

Travel

Beiks / Beiks Travel Dictionaries / www.beiks.com

OnLine Resources

Maximum PDA
MaximumPDA provides news and reviews on Palm, PocketPC and other devices. A low price search engine, PDA email, Search Portal and Mobile Channel make MaximumPDA a premier PDA publisher. *www.maximumpda.com*

Palmloyal
Looking for a good source of information or downloads that will allow you to get the full experience and use of your Palm device? *www.palmloyal.com*

PDARealm.com
PDARealm provides daily news updates to feed your need for handheld computing information. Read all about the newest updates in the PDA Realm! *www.pdarealm.com*

ZATZ: Pure Internet Publishing
The leading monthly online magazine about Palm OS handhelds is of great help to new users, power users, and even developers. PalmPower Magazine is a tips and techniques journal for Palm "power enthusiasts" and those who want to be. *www.palmpowered.com*

PDABuzz.com
PDABuzz is the number one Web site delivering cutting edge news, information, product review and outstanding forum discussion boards for Palm, Pocket PC, RIM, Linux and other handheld computers. Come see why over 28,000 users visit PDABuzz every day!!! *www.pdabuzz.com*

Planet PDA
The 3rd Global Summit On Enterprise & Custom Volume Handheld Computing Solutions
Come Find Ways To Increase Productivity & Profitability With PDA Technologies!
Reserve Your Space Today By Calling Bruce Hirsch @ 203-852-6800 ext. 130
www.planetpdaexpo.com

Wi-Fi Man and Bluetooth Boy

Does anyone care which wireless technology reigns supreme? Cut the cords and be done with it.

Rick You have been a champion of Bluetooth since the technology was first unveiled several years ago. You've written a rather fawning discourse that appears elsewhere in this issue. Your wife tells me you've tattooed "Bluetooth" somewhere on your person (I prefer not to know where). I have never been so bored by a technology in all my life (except perhaps for Internet-enabled refrigerators). Wake me when Bluetooth does something interesting.

Dave First of all, when you have that Powerpuff Girls "Pillow Fight" tattoo removed, we'll talk about my tattoos. In the meantime, I don't understand why you are so bitterly opposed to a wireless substitute for cables. To paraphrase Michael Biehn from *The Terminator*, that's what it *does*; that's *all* it does. What's so bad about a technology that eliminates printer cables, serial ports, USB connections, and modem cables? It's not a cure for cancer, but wouldn't you prefer to be unencumbered by wires? I certainly would.

Rick Hey, I'm all for banishing the snake's nest of wires underneath my desk, but I'm not about to invest in a new mouse, keyboard, printer and scanner just for the privilege. Plus, I don't want the signals from these devices interrupted every time I microwave a pizza. I am not bitterly opposed to wireless technologies—quite the opposite. 802.11b Wi-Fi may just revolutionize computing, and I love the deployment of it in my home. As for Bluetooth, I said this four years ago and I'll say it again: it will never catch on. It'll be a niche technology at best.

Dave No one is asking you to go out and buy new stuff. The industry expects people to adopt Bluetooth as part of the normal upgrade and replacement cycle. When you replace your aging printer, you'll get Bluetooth. Tired of your cell phone? You'll buy a handset with Bluetooth built in. It's no different than PC upgrades; people didn't go buy new PCs the very day that USB came out. Instead, when they got tired of their old 486 or Pentium and bought a new PC, they discovered that they now had USB. And Wi-Fi is great too, but it's a different technology. Why do you keep comparing them like they're either-or? Wi-Fi networks. Bluetooth replaces cables. You can have both and the world won't end.

Rick Don't get your pant-leg caught in the chain with all that back-pedaling. When Bluetooth was first announced, you likened it to sliced bread and said it would be everywhere—airports, mobile phones, toasters—by the end of 2000. Here it is two years later, and the handful of Bluetooth products that you can actually buy are expensive and difficult to configure. Which is exactly what I predicted would happen. You proceed from a false assumption: I don't *want* Bluetooth to fail, I just think it will. It's four years later, and Bluetooth is still barely a blip on anybody's radar. No one cares except a few gearheads.

Dave You're so creative with numbers that you should be helping to write the Federal budget. You can't start the clock on a technology when it's announced, nitwit. What does that prove? Since Bluetooth made its commercial debut, oh, a few months ago, is it any wonder there are some compatibility and configuration issues? Didn't USB have the same trouble? Yet look where it is now. And in many ways, they are sister technologies. There's nothing sexy or exciting about USB, but everyone uses it. Depends upon it. Takes it for granted. With luck, Bluetooth will be the same in a few years. No one *should* care about Bluetooth... it should be a utility that just plain works. Give it time and stop trying to poo-poo it on an hourly basis, and Bluetooth may have a chance to get there.

Rick I really wish I could believe you, but you think *Enterprise* is a better *Star Trek* show than *Voyager*. That just destroys your credibility.

Dave Just remember this, Wi-Fi boy: even on *Voyager*, no one plugs stuff in. I imagine the lack of PS/2 connectors on the bridge means they use Bluetooth.◆

Did anyone besides Rick actually like Voyager? *Do you see Bluetooth in your future? Write us at letters@hhcmag.com. The best letter gets a PDA prize.*

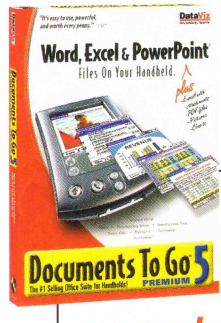
Have office, will travel.

Documents To Go® 5 PREMIUM EDITION

Go Ahead. Leave Your Laptop Behind.

Documents To Go Premium Edition gives you the kind of "anytime, anywhere" productivity your business demands – without the inconvenience of a laptop. This powerful handheld office suite lets you use Word, Excel and PowerPoint files on your Palm™ handheld, Sony CLIE™ or Handspring™ device; in addition synchronize e-mail with attachments, PDF files, pictures and Excel-like charts. It's now so easy to tweak a spreadsheet, polish a presentation or even catch up on e-mail. No wonder why the *New York Times* called Documents To Go nothing short of "remarkable."

Documents To Go Premium Edition
Word, Excel & PowerPoint®
Plus a whole lot more.



Buy or Upgrade to Documents To Go Premium Edition
www.dataviz.com/hhmag

DataViz®
Compatibility. Instantly.
1.800.240.1116

Got Documents To Go on your handheld?

A version of Documents To Go is now included on most Palm and Sony CLIE handhelds.
To get even more productivity-packed features, upgrade your copy of Documents To Go to the Premium Edition!
For special upgrade offers and to learn more, visit *www.dataviz.com/hhmag*

©2002 DataViz, Inc. All rights reserved. All product names, logos and icons are trademarks or registered trademarks of their respective holders.
0702-538-HHC

NOW FOR
POCKET PC!

TombRaiderToGo.com

PUT LARA IN THE PALM OF YOUR HAND

TOMB RAIDER
FOR POCKET PC

State-of-the-art 3D graphics

The award-winning original Tomb Raider adventure

An immersive combination of puzzle, platform and adventure elements

16 massive action-packed levels

TEEN
T
CONTENT RATED BY ESRB

Animated Blood
Violence

20% OFF!
for details visit
EidosRebates.com

core design

EIDOS INTERACTIVE

Tomb Raider for Pocket PC ©Core Design Limited 2002. Developed by Ideaworks3d Limited. Published by Eidos Interactive, Inc. Tomb Raider and Lara Croft are trademarks of Core Design Limited. Eidos, Eidos Interactive, and the Eidos Interactive logo are all registered trademarks of Eidos Interactive, Inc. The ratings icon is a registered trademark of the Interactive Digital Software Association. All rights reserved.

Save 43% off Newsstand Rate

Handheld Computing™ Magazine

☐ 1 Year/6 Issues $16.95 ☐ 2 Year/12 Issues $29.95

Handheld Computing™ Enterprise & Wireless

☐ 1 Year/6 Issues $16.95 ☐ 2 Year/12 Issues $29.95

Free e-Newsletters: ☐ Weekly ☐ Sony CLIÉ ☐ Developer ☐ Enterprise ☐ Send Me Product Info from HHC and it's Partners

Extra Issue Free with Enclosed Payment!

Name_____

Address_____

City_____ State_____ Zip_____

Phone_____ Email_____

HANDHELD computing

☐ Check (to Handheld Computing) ☐ Visa ☐ Mastercard ☐ American Express ☐ Bill Me

Card #_____ Exp. _____ Signature_____

Web Orders: www.hhcmag.com/subscribe **Telephone Orders: 888.406.4048**

☐ Canada/Mexico add $20 Per Year ☐ Foreign add $49.95 Year — Must subscribe at website / All Payment in US Funds

Please Allow 4-8 Weeks for Delivery of Your First Issue

Save 43% off Newsstand Rate

Handheld Computing™ Magazine

☐ 1 Year/6 Issues $16.95 ☐ 2 Year/12 Issues $29.95

Handheld Computing™ Enterprise & Wireless

☐ 1 Year/6 Issues $16.95 ☐ 2 Year/12 Issues $29.95

Free e-Newsletters: ☐ Weekly ☐ Sony CLIÉ ☐ Developer ☐ Enterprise ☐ Send Me Product Info from HHC and it's Partners

Extra Issue Free with Enclosed Payment!

Name_____

Address_____

City_____ State_____ Zip_____

Phone_____ Email_____

HANDHELD computing

☐ Check (to Handheld Computing) ☐ Visa ☐ Mastercard ☐ American Express ☐ Bill Me

Card #_____ Exp. _____ Signature_____

Web Orders: www.hhcmag.com/subscribe **Telephone Orders: 888.406.4048**

☐ Canada/Mexico add $20 Per Year ☐ Foreign add $49.95 Year — Must subscribe at website / All Payment in US Funds

Please Allow 4-8 Weeks for Delivery of Your First Issue

Save 43%

off Newsstand Rate

Plus Extra Issue Free!

Handheld Computing™ Magazine

The #1 Guide to Handheld Devices
Pocket PC and Palm Powered PDAs, Smartphones, Digital Cameras, MP3 Players and more!

1 Year / 6 Issues $16.95

2 Year / 12 Issues $29.95

Handheld Computing™ Enterprise & Wireless

The premier resource for mobile professionals, IT executives, and others who use, manage, and purchase handheld and wireless products.

1 Year / 6 Issues $16.95

2 Year / 12 Issues $29.95

HJandheld Computing Free e-Newsletters:

Weekly, Sony CLIÉ, Enterprise, Developer

Subscribe Today!

www.hhcmag.com/subscribe

888.406.4048

HANDHELD computing

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 972 NORCROSS GA
POSTAGE WILL BE PAID BY ADDRESSEE

HANDHELD MEDIA GROUP
P O BOX 921998
NORCROSS GA 30010-9934

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 972 NORCROSS GA
POSTAGE WILL BE PAID BY ADDRESSEE

HANDHELD MEDIA GROUP
P O BOX 921998
NORCROSS GA 30010-9934

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

Save 43%

off Newsstand Rate

Plus Extra Issue Free!

Handheld Computing™ Magazine

The #1 Guide to Handheld Devices
Pocket PC and Palm Powered PDAs, Smartphones, Digital Cameras, MP3 Players and more!

1 Year / 6 Issues $16.95

2 Year / 12 Issues $29.95

Handheld Computing™ Enterprise & Wireless

The premier resource for mobile professionals, IT executives, and others who use, manage, and purchase handheld and wireless products.

1 Year / 6 Issues $16.95

2 Year / 12 Issues $29.95

HJandheld Computing Free e-Newsletters:

Weekly, Sony CLIÉ, Enterprise, Developer

Subscribe Today!

www.hhcmag.com/subscribe

888.406.4048

HANDHELD computing